

SEPTEMBER '59

MODERN TEXTILES

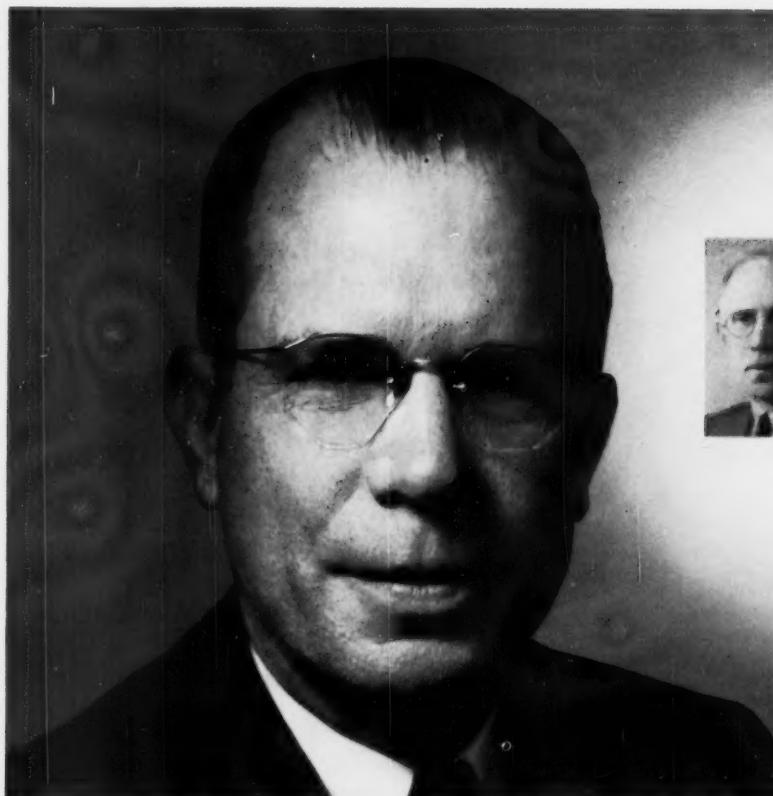
MAGAZINE

Specializing in Man-Made Fibers and Blends since 1925

FIBERS

FABRICS

FINISHES



Avondale's
CRAIG SMITH
carries on the
Comer tradition
of quality fabrics
produced by
modern machines—
story page 33

THIS MONTH:

New Denier & Filament Tables

New Markets with Manmade Fibers

All About Textured Yarns—Part 2

Printing with Emulsions

PLUS OUR USUAL TIMELY REPORTS AND HELPFUL ARTICLES

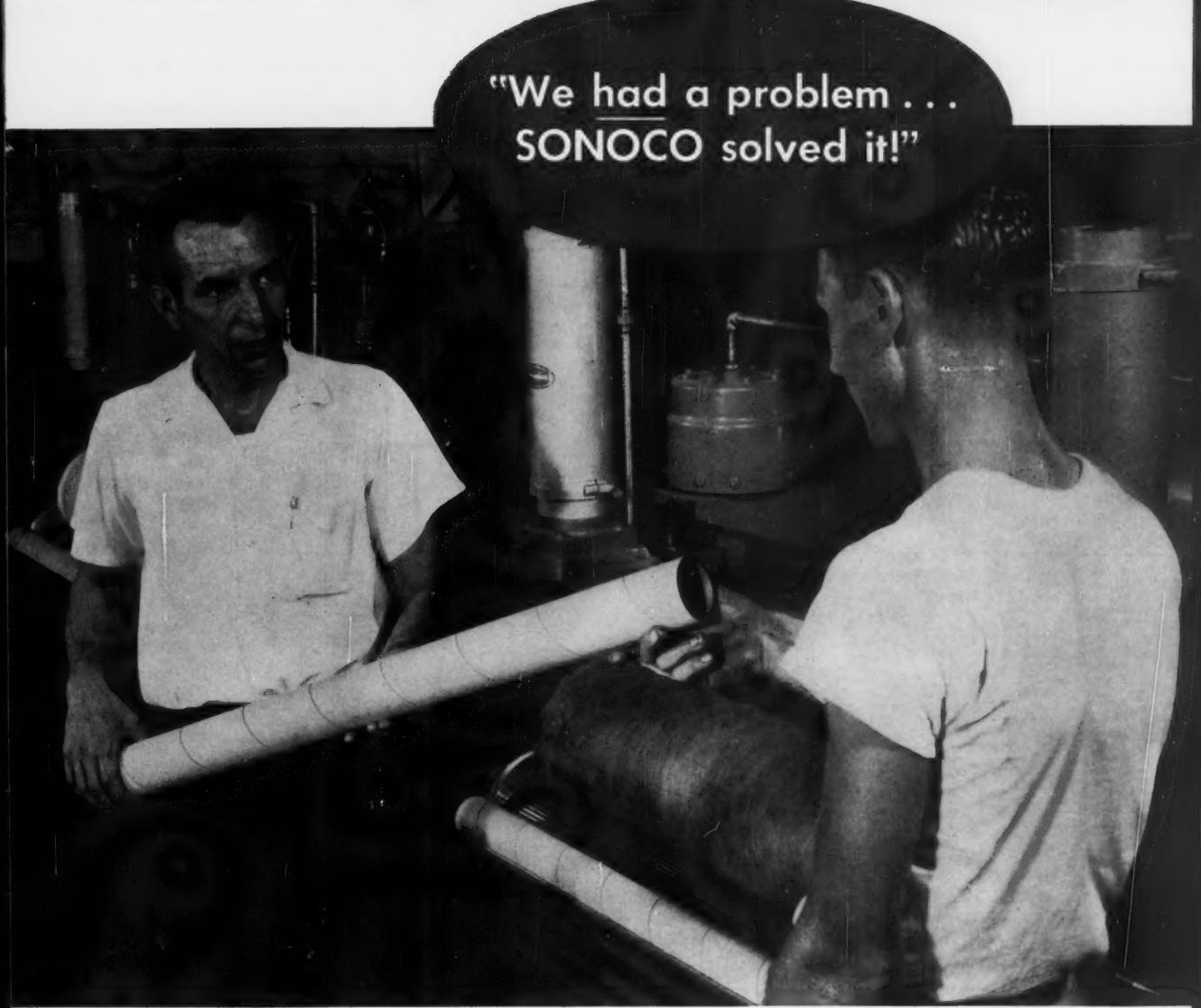


266,000 Miles...a recent performance record achieved by a Draper Tru-Mold Shuttle. This shuttle was in continuous operation for over 20,800 hours and was still in running condition when removed from the loom. While these figures are impressive, they are even more amazing if we consider the number of times the shuttle was boxed and thrown. A quality shuttle coupled with proper care and handling make records of this type possible. For shuttles that last longer ... give better performance...use Draper Tru-Mold Shuttles.



DRAPER CORPORATION

HOPEDALE, MASS. • ATLANTA, GA. • GREENSBORO, N. C. • SPARTANBURG, S. C.



"We had a problem . . .
SONOCO solved it!"

THE NEED: An improved, lower cost picker lap tube

High quality picker lap tubes are essential in the trouble-free carding of natural and synthetic fibers. For years, the industry used convolute tubes with sulphur treated ends for durability. While this type served the purpose, prolonged use caused the hardened ends to chip off. In some cases, this condition resulted in damage to the card clothing.

Sonoco sales engineers, through research sought a solution to this problem. As a result, a new type, lightweight *spiral* picker lap tube has been developed, tested and proved. It

lasts up to three times longer than the old type! Sulphur-treated ends have been eliminated! And, *the cost is nearly 40% less!* That's progress . . . Sonoco-style!

Only Sonoco with 60 years' experience, plus modern research and completely integrated manufacturing facilities, could solve this problem quickly. It is typical of countless cases where Sonoco technical and production "know-how" has benefited the industry. *Let Sonoco experience help you!*



SONOCO
Products for Textiles
SONOCO PRODUCTS COMPANY

MODERN TEXTILES

MAGAZINE

September, 1959 Vol. 40, No. 9

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Established 1925

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Synthetic Organic Chemical Manufacturers Association 41 E. 42nd St., New York
Textile Distributors Institute, Inc. 469 Seventh Ave., New York

CONTENTS

Publisher's Viewpoint

A Bright Future for Man-Made Fibers

31

Features

A High Point in Textile Boom?

by Robert C. Shook

32

Avondale Mills' Craig Smith

33

A Millman's Guide to Textured Nylon Yarns—Part II

35

Shuttleless Looms

43

Printing with Emulsions

by Raymond W. Jacoby

47

New Markets with Man-Made Fibers

by Jerome Campbell

65

Revised Denier & Filament Tables of U. S. Man-Made Yarns

87

by H. Geo. Janner

A Proposed Procedure for Labeling Act Guarantees

99

Departments

Dyeing & Finishing Notes

48

New Fabrics

52

New Machinery

56

Worldwide Textile News

84

TDI News and Comment

99

Textile News Briefs

102

Yarn Prices

105

Calendar of Coming Events

120

Index of Advertisers

120

MORE THAN 3½
MILLION SPINDLES
NOW EQUIPPED WITH
ROBERTS HIGH DRAFT

ROBERTS SPINNING NEWS

PUBLISHED BY
ROBERTS COMPANY
SANFORD,
NORTH CAROLINA

WM-2

SANFORD, NORTH CAROLINA, U. S. A.

1959

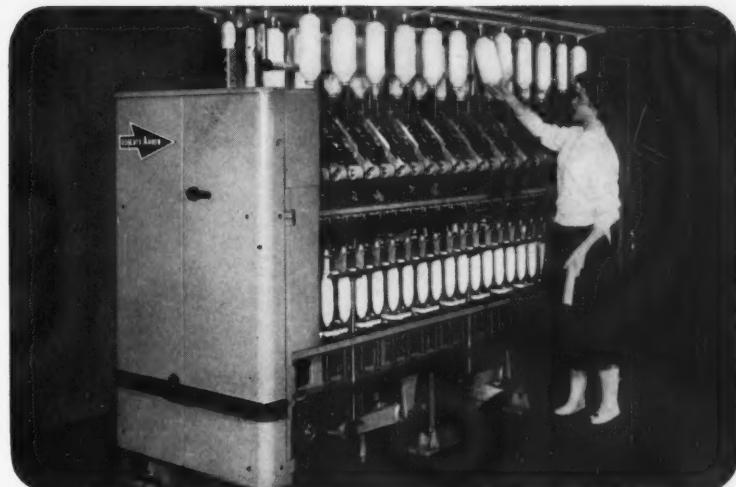
ARROW WM-2 LONG FIBER SPINNING FRAMES OFFER WIDEST YARN MAKING VERSATILITY

A dynamic program of new product design, advanced styling and aggressive merchandising is underway by all segments of the Textile Industry.

Knitting yarns of higher quality and greater interest are being called for in worsted, synthetics and blends. Finer weaving yarns up to 2 ply 80's are being called for and a great many blends are currently being explored. The longer fibers are in wide demand and the next few years should see a substantial boom in this field.

The demand for high bulk knitting yarns and the finer weaving yarns plus all of the newer fabric effects being created require fiber lengths from 3 to 8 inches long.

ARROW WM-2 frames are suitable for making yarns in any fiber length from 1½ to 8 inches. They provide great versatility in handling 100% synthetics, blends of synthetics, 100% worsteds and blends of worsted with synthetics in this range. Better quality yarns with greater evenness, bigger package sizes and higher production speeds are produced on ARROW frames.



- Spins yarn from any natural or synthetic fiber or any blend.
- PermaSet Drafting handles any fiber length from 1½ to 8 inches
- No roll setting changes needed at any time
- Great versatility for changing yarn numbers, twist, draft, ring size, and spindle speed
- Drafts as high as 24 on worsted, 60 on synthetic
- Produces yarn with better evenness and greater breaking strength
- Ball bearing top and bottom rolls eliminate all lubrication in drafting zone
- Almost ideal spinning conditions from delivery roll to spindle
- Runs at higher front roll, traveler and spindle speeds
- Reduces ends down by more than 50%
- Puts twice as much yarn on the bobbin as older frames
- 12-inch bobbins reduce winding costs
- Very rugged, most durable machine ever built for yarn spinning
- Frame is built in the wide-stance 36-inch width
- Uses ball bearings at every moving, turning or oscillating motion
- Substantially lowers electric power consumption
- AeroCreel for single or double roving
- Frame arranged for practical application of overhead cleaning and vacuum floor sweeping

Roberts ShortFlo System for Making Long Fiber Yarns

Roberts Company offers complete technical service in adapting its ShortFlo System for the production of long fiber yarns. This includes the complete yarn manufacturing process starting with tow converters, blending machines, pin drafting, roving frames, spinning frames, winders and twisters.

Where mills have existing equipment, full consideration is given to

utilizing it whenever possible. Or, if a new long-fiber program is planned, all machinery can be specified, and the complete yarn organization set up.

The ShortFlo System for making long fiber yarns requires a minimum number of processes. Many doublings are provided to insure exceptionally good blending of fibers, improved evenness and better strength.

Montecatini's U. S. Plant

Novamont Corp., the wholly-owned American subsidiary of Montecatini, of Italy plans construction of a \$10 million chemical plant for the production of isotactic polypropylene and other polyolefins important in the manufacture of high quality plastics, textiles fibers, yarns, and elastomers. Site of the plant will be a 200-acre tract at Neal, W. Va. Initial capacity of the new plant is scheduled to be around 10 million pounds annually.

New Courtaulds Operation

Courtaulds (Canada) has purchased Guardian Chemical & Equipment Co.'s operation for production and marketing of foamed polystyrene, including the registered trademark "Styrolite." The purchase also includes the transfer to Courtaulds of the exclusive

license, previously held by Guardian, for the use and sale in Canada of prefoaming and moulding equipment from Company Etablissement Plastitec of Vaduz, Liechtenstein. To exploit these acquisitions, Courtaulds Plastics (Canada) Ltd. has been formed with N. I. Battista as chairman and J. G. Davoud as president.

Rayon Institute Shuts Down

The American Rayon Institute, Inc., has suspended for the immediate future its promotional activities in the fashion and home furnishings fields. The suspension followed a decision by member companies to emphasize promotional activities on an individual company basis. Miss Jeanne Pierre has resigned as the Institute's director of fashion. The Institute was organized in 1953 by a number of producers of rayon for the purpose of stimulating consumption of rayon

NON-FLUID OIL
stays
where applied

Ordinary Oil
throws and
spatters

NON-FLUID OIL

Ordinary oil and thin grease cannot prevent bearing wear, because they do not stay in bearings, but drip and spatter out.

NON-FLUID OIL prevents bearing wear that causes misalignment of Top and Doffer Flats, and uneven sliver, because it adheres to bearing surfaces until it is entirely consumed. It does not throw or spatter

on card clothing and cotton, causing waste and spoilage loss.

NON-FLUID OIL outlasts the best grade of ordinary oil 4 to 6 times, which means even further savings in both application time and lubricant.

Seven out of ten mills use NON-FLUID OIL in their card rooms. Write for Bulletin T-5 and free testing sample.

NEW YORK & NEW JERSEY LUBRICANT CO.

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NON-FLUID OIL is not the name of a general class of lubricants, but is a specific product of our manufacture. So-called grease imitations of NON-FLUID OIL often prove dangerous and costly to use.

Move Engineering Office

American Viscose Corp. has moved its central engineering department offices from Philadelphia to Marcus Hook, Pa. The relocation will centralize the technical functions of the corporation at the Marcus Hook site where its research and development division and technical and textile service department are also located.

New Name for Elastomer

U.S. Rubber Co. is reported planning an advertising campaign on trade and consumer levels to promote its new elastomer fiber and its new name, "Lastex S." The fiber, which previously had been called Vyrene, is said to be meeting trade acceptance in swim wear and foundation garment fields.

Armstrong Textile Unit

The Industrial Division of Armstrong Cork Co. has established a new unit, the Textile Products Research Department, to handle all research and development of products for the textile processing industry. Robert S. Olcott will manage the new department.

New Mylar Film Plant

A second plant for manufacturing Mylar polyester film, and which will almost double the capacity for this industrial and packaging film, will be built by the Du Pont Co. near Florence, S. C. Cost of the new plant will be almost \$20 million.

Pulp Capacity Expanded

Buckeye Cellulose Corp. has doubled the original capacity of its 5-year-old wood pulp plant at Foley, Fla., with the completion of a new \$20,000,000 mill. The new capacity is 200,000 tons of dissolving pulp annually, or 266,000 tons of paper pulp. Buckeye also operates a linters plant in Memphis, Tenn., with an annual capacity of 115,000 tons.

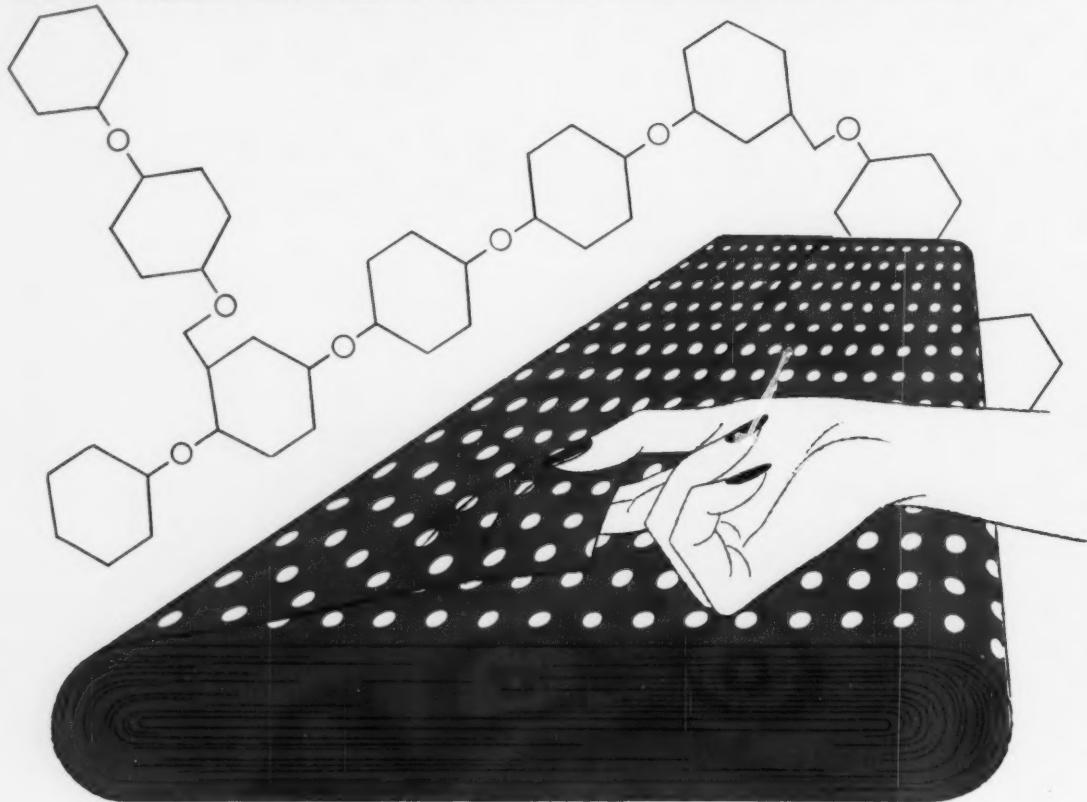
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FINISH
RINGS

*product of
86 years experience
and
the world's largest
ring plant*

WHITINSVILLE (MASS.)
SPINNING RING CO.
Makers of Spinning and Twister Rings since 1873.

Kosol

NEW COLD WATER DISPERSIBLE HAND BUILDER



IMPROVES HAND OF WASH 'N WEAR FABRICS

KOSOL is a new kind of hand builder. With a branched chain type structure that cross-links more readily with resins. Clear. Colorless. Gives a new fullness to wash 'n wear finishes.

KOSOL takes only minutes to prepare. No cooking. No cooling. You simply disperse in cold water.

Add to resin mixture. Then apply to fabric!

KOSOL is compatible with all resins now in widespread use. It's another development of textile research at National. Try it for that little extra that means so much in fabrics. Write or call your nearest National office.

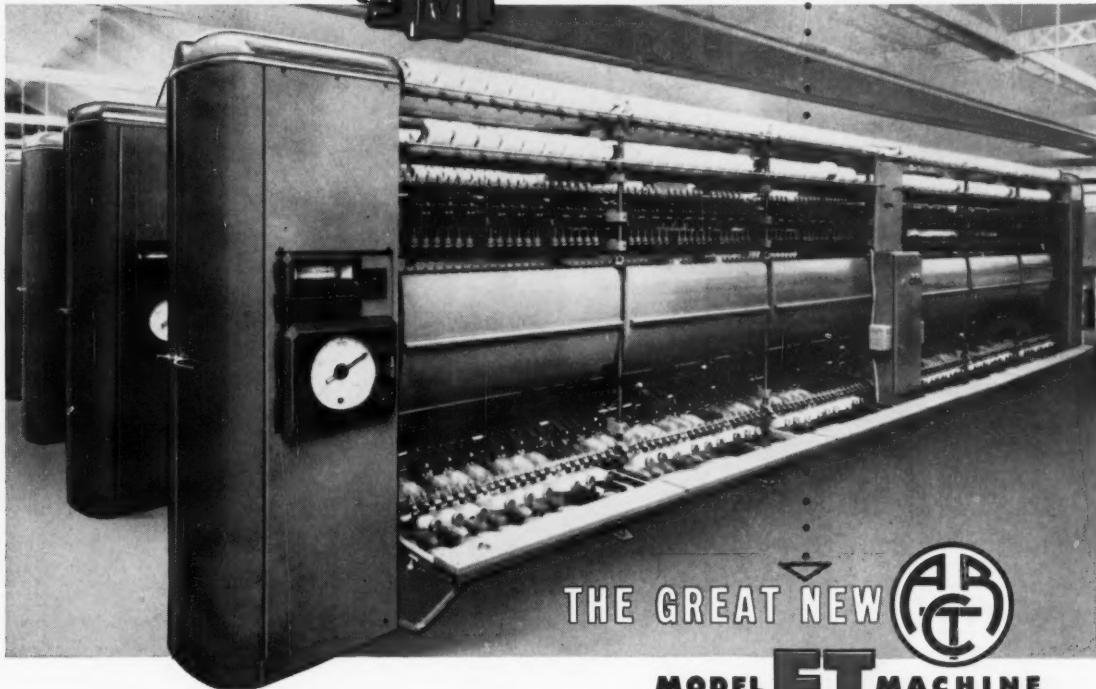
TEXTILE DIVISION

National
STARCH and CHEMICAL
CORPORATION

750 Third Avenue, New York 17
3641 So. Washtenaw Avenue, Chicago 32
87 Haynes Street, N.W., Atlanta 3

the  **Spotlight** is on textured yarns

WHITIN *presents...*
an outstanding new machine for the processing of thermoplastic stretch and crimp yarns of unsurpassed quality.



THE GREAT NEW 
MODEL FT MACHINE

Known throughout the world in the production of "Helanca" type yarns, this machine is now available from Whitin, as licensee of A.R.C.T.[®] in the United States, Canada and Mexico.

To the rapidly expanding field of crimp and stretch yarns, the FT machine with its many unusual features, brings a new standard of yarn quality based upon precise control of the 3 major factors in yarn preparation: Tension, Temperature and Twist.

Here is the mill-tested precision machine with exclusive thermal, electrical and mechanical features to produce yarns of an unusually high degree of uniformity and excellent quality — yarns having the required characteristics for successful weaving and tricot operations.

*Ateliers Roannais de Constructions Textiles, Roanne, France.



WHITIN **MACHINE WORKS**
WHITINSVILLE • MASSACHUSETTS

CHARLOTTE, N. C. • GREENSBORO, N. C. • ATLANTA, GA. • SPARTANBURG, S. C. • DEXTER, ME.

Reference Chart BEMBERG® RAYON NOVELTY YARNS

TYPE YARN	DESCRIPTION	DENIERS	FUNCTION	COLORS	FABRIC END-USE
NUB-LITE®	High-low, non-mechanical, short entangled slub, irregular in size and spacing.	155-160-200- 315-410-600- 860	Filling with acetate, silk, or Chromspun warps.	Natural for piece-dyed fabrics. 36 direct skein-dyed colors for loom-finished fabrics.	Lower deniers in dress and blouse fabrics. Heavier deniers for draperies, upholstered, bedspreads.
CUPIONI®	Longer entangled slub, irregular in size and spacing, but mechanically controlled for the Duppioni silk-look. Multi Cupioni has approximately twice as many slubs as normal Cupioni. Multi Cupioni #2 is a softer yarn, also has duller luster.	70-100-150-285- 450-600-940- 100- 150	Filling with cotton, acetate, silk or Chromspun warps.	Natural for piece-dyed fabrics. 36 direct skein-dyed colors for loom-finished fabrics.	Fabrics for dresses, blouses, slacks, ladies' and men's suits.
LONG TYPE "A" SLUB	Long, parallel, non-entangled slub for the true thick and thin look. Soft hand.	900	Filling with acetate, silk, or Chromspun warps.	Natural for piece-dyed fabrics. 36 direct skein-dyed colors for loom-finished fabrics.	Lower deniers in dress and blouse fabrics. Heavier deniers for draperies, upholstered, bedspreads.
MEASLE YARN	Part tight, part loose filaments with different shrinkage . . . forming loop or boucle effect. In weaving, loops break through surface of fabric for decorative dot effect.	1200-2350-3400	Filling with acetate, silk, or Chromspun warps.	Natural for piece-dyed fabrics. 36 direct skein-dyed colors for loom-finished fabrics.	Lower deniers as filling in dress and blouse fabrics. Heavier deniers for upholstered, draperies, bedspreads.
STRATA SLUB	Torpedo shaped slubs, spaced; Strata 9' apart; Multi Strata 6' apart; Multi Strata, 6; Dream Slub 18'; MM	275-450-600- 900-1290-2680- 1300- 450	Filling with acetate, silk, or Chromspun warps.	Natural for piece-dyed fabrics. 36 direct skein-dyed colors for loom-finished fabrics.	Upholstery, draperies, bedspreads.
MULTI-STRATA SLUB	Strata is similar in appearance to Dream Slub, but slubs are more frequent and shorter spaced.	2600-5400			
FLAIKONA®	Part of the end running normal and part running with flake slub. Similar in softness and appearance to other flake, and will run in filling without being piled with a straight yarn.	300-600-900- 450-2000	Filling with silk, cotton, acetate, nylon, Chromspun, Fortisan, Vycron, or Orion warps. As multi-colored decorative yarn. Plied with any Bemberg yarn.	Natural for piece-dyed fabrics and spun-dyed Cupra-color Black.	Upholstery, draperies, bedspreads.

NOTE: CUPIONI—150-285-940 deniers are available in 23 solution dyed colors.

STRATA—600-960 deniers are available in 23 solution dyed colors.

SPECIAL PROCESSED YARNS—The special process can be applied to Bemberg, Vycron or any yarns single end or any combination of yarns. This process gives the yarn a surface interest, softer hand and simulates a spun look.



AMERICAN BEMBERG • Main Office: 261 Fifth Avenue, New York 16, N.Y. • Plant: Elizabethton, Tennessee

**SCHOLLER INTRODUCES AN AMAZING
GROUP OF NEW, DURABLE SOFTENERS...**

The
Creamoyls

The result of more than two years of development and application on millions of yards of fabrics and all fibers...a group of finishes that imparts a wide variety of desirable properties with an ease of application that demands nothing more than required in the usual pad or exhaust methods...

The CREAMOYLS present variations of the same basic finish, each designed to do the very best possible job on each specific fiber and fabric requirement.

The CREAMOYLS are durable finishes that impart a fabulous loft and fullness of hand, a high degree of controlled softening without "ragginess", a fine surface lubricity and excellent anti-static qualities.

Manufacturers will discover many additional advantages in CREAMOYL-finished fabrics: better cutting, more efficient sewing, will not discolor white-goods on prolonged storage, and increases wash-fastness of many dyestuffs.

The CREAMOYLS are available as modified cationic, anionic, nonionic, and amphoteric systems and particularly recommended for enhanced finish on piece goods, knit goods, sweaters of wool or synthetic fibers, socks, anklets and leotards, non-woven fabrics, stretch yarns and fabrics.

Test samples are available on request. Please specify the fabric and fiber on which the finish is to be applied so that the proper, recommended CREAMOYL may be forwarded.

Scholler BROTHERS, INC.

PIONEERS IN THE BETTER FINISHES THAT MAKE THE BETTER FABRICS; SINCE 1907

Collins & Westmoreland Sts., Philadelphia 34, Penna. IN CANADA: Scholler Brothers, Ltd., St. Catherines, Ontario





PREMIERE: "THE DU PONT SHOW WITH JUNE ALLYSON", CBS-TV

A night to remember. Monday, Sept. 21, at 10:30 PM, EDT, a brand-new dramatic show on 139 CBS-TV stations will help you sell millions of America's best textile customers. Exclusive DuPont sponsorship. Week after week, viewers from coast to coast will see and hear about the proved performance of DuPont nylon, "Dacron"** polyester fiber and "Orlon"** acrylic fiber...keeping them miles ahead in consumer preference. The first show: "Those We Love", a powerful, appealing story starring Miss Allyson, with Ann Harding. Tune in, won't you? You'll enjoy it!

DU PONT NYLON • "ORLON" • "DACRON"
ACRYLIC FIBER POLYESTER FIBER
...MILES AHEAD IN CONSUMER PREFERENCE



Better Things for Better Living . . . *through Chemistry*

**"Dacron" and "Orlon" are DuPont's registered trademarks.

ARNEL'S "STAMPS" OF CONSUMER APPROVAL

In previous advertisements in this series we have "ticked off" various aspects of Arnel's outstanding success among today's fibers. One factor that constantly recurs is that of convenience to the consumer.

Arnel's ease of handling, processing and styling flexibility are well known to mills and converters. But Arnel's consumer convenience—wash-and-wear, ease-of-care—is what makes the sale—and keeps it sold. Consider the convenience of little or no IRONING.

To the consumer:

1. Many Arnel triacetate fabrics, such as jerseys, require no ironing after machine laundering and extracting. Others require varying degrees of touch-up ironing.
2. Fabrics made of Arnel may be ironed safely at temperatures up to 450° F. without any damage. This corresponds to the average wool—cotton setting on an automatic iron.
3. They may be ironed while dry. A steam iron may also be used.
4. The high heat resistance of fabrics containing Arnel produces excellent resistance to glazing as a result of ironing.
5. All fabrics carrying the official Arnel symbol have been pretested for performance claimed—including safe ironing temperature (Tests are conducted free of charge by the Celanese Corporation of America).

To take advantage of the great consumer acceptance of Arnel, let Celanese work with you to develop new construction in Arnel fabrics. Booklets 12A, 13A and 14A, containing the important technical procedure and facts about Arnel, are available by writing Celanese Corporation of America, Box 1414, Charlotte, N. C. Celanese® Arnel®

District Sales Offices: 180 Madison Ave., New York 16, N. Y.; Room 10-141 Merchandise Mart, Chicago 54, Ill.; Western Merchandise Mart, Room 478, San Francisco, Calif.; P. O. Box 1414, Charlotte 1, N. C.; 200 Boylston St., Chestnut Hill 67, Mass.; 3179 Maple Drive N. E., Atlanta 5, Ga.

Export Sales: Amcel Co., Inc., and Pan Amcel Co., Inc., 180 Madison Ave., New York 16, N. Y.

In Canada: Chemcell Fibres Limited, 1600 Dorchester Street West, Montreal, Quebec



Arnel . . . a



IRONING- NO PROBLEM



DIMENSIONAL
STABILITY



WRINKLE
RESISTANCE



FABRIC
TESTING

 ARNEL®

*This is the official Arnel symbol—evidence that this fabric of this new triacetate fiber has been pre-tested for performance claimed.

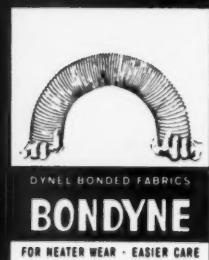
Celanese contemporary fiber

DYNEL

STEP OUT WITH BONDYNE FABRICS



for truly neater wear . . . easier care



Here's the exciting fabric and merchandising program that's making the biggest news in the market today . . . BONDYNE* Fabrics.

These specially controlled blends of rayon or cotton and DYNEL have built-in bounce back. Thanks to DYNEL they deliver durable press (and pleat) retention, exceptional

strength and wearability and longer lasting good looks.

MILLS—investigate how you can fit into this profitable BONDYNE program.

CONVERTERS—check the variety and saleability of the blends and constructions BONDYNE producers are offering. Call or write for details.

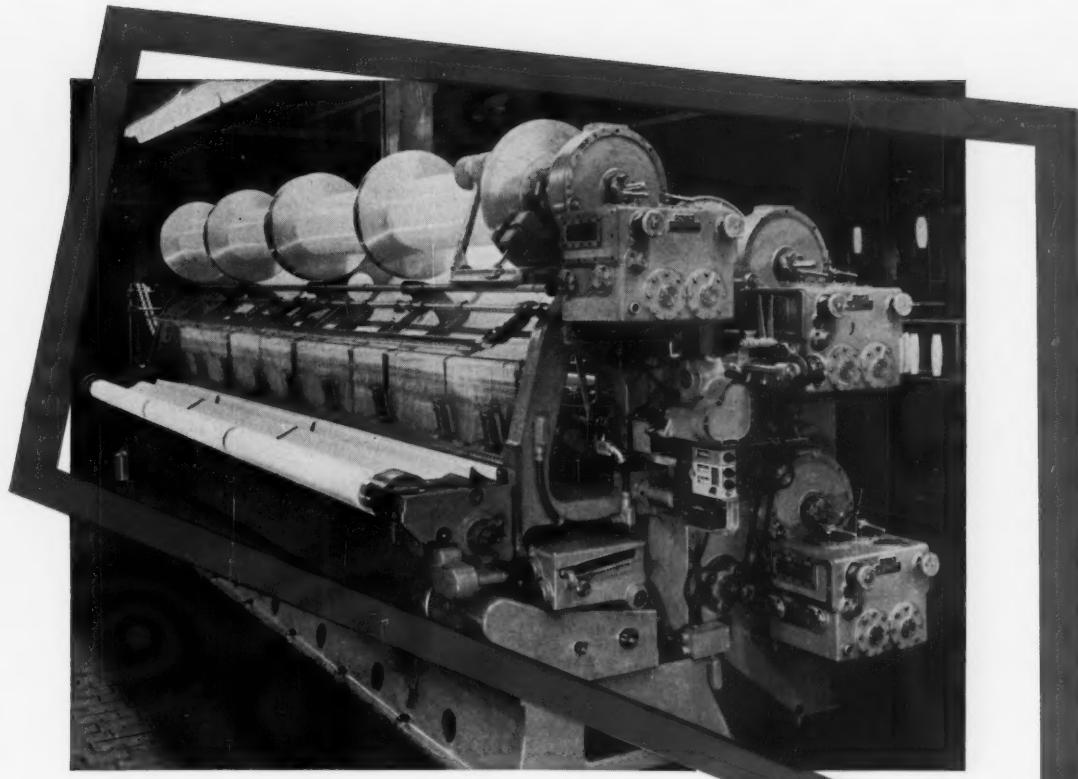
DYNEL • A



Textile Fibers Department, Union Carbide Chemicals Company, Division of Union Carbide Corporation, 100 East 42nd Street, New York 17, New York. Offices in Boston, Mass. at 300 First Ave., Needham Heights; Charlotte, N. C. at 1218 Liberty Life Bldg.; Montreal, Que.; Toronto, Ont.

"Union Carbide" is a registered trade-mark of Union Carbide Corporation

*Trade-mark of Greenwood Mills, Inc.



Lower cost per yard of Tricot fabric

Here is the new 3-bar high-speed "READING" Tricot Machine, combining all the mill-proved features of the 2-bar machine, plus new and exclusive advantages:

Interrupted let-off control for front and middle beams

Accommodates warps up to 32" dia. for bottom and middle beams, 21" dia. for third beam

48-course pattern drums independently mounted and designed for use with varied length pattern chains

Continuous production at high speed, amazing uniformity in fabric yield, and low cost per yard of fabric are assured, with both the 2-bar and 3-bar machines. Knitting width, 168". Let us give you full details.

Wire Products Division
TEXTILE MACHINE WORKS • READING • PENNA.
Builders of Textile Machinery Since 1900

*The "READING"
Tricot Machine*

Metlon makes everything look better!

Many fine weavers are using Metlon in combination with these new fibers for their important new constructions.

BEMBERG Rayon with Metlon

A heavy, straight, two tone full 900 denier filament yarn producing particularly effective tweed effects in quality fabrics of many types.

AMERICAN VISCOSE Avron^{*}

high strength rayon with Metlon

A staple yarn 40% stronger dry and 70% stronger wet than ordinary viscose rayon; for finer yarn counts used in light weight apparel and home furnishings fabrics.

*Trademark

CELANESE[®] Celaire[®] with Metlon

Acetate staple fiber yarn, blended with other fibers for increased abrasion resistance; licensed for floor coverings, upholstery, slipcover and other fabrics.

CHEMSTRAND Acrilan[®] with Metlon

Carpet yarns spun from Chemstrand's acrylic fiber; franchised under rigid supervision to manufacturers of superior quality carpets.

COURTAULDS[®] Coloray[®] with Metlon

Captive color, solution-dyed viscose rayon staple yarn for all types of fabrics; no fading after 500 hours of exposure to Florida sun.

DU PONT Ondule^{*} with Metlon

Random slub rayon yarn used in a wide variety of casement and drapery fabrics; for interesting texture and color.

*DuPont's trademark for its random slubbed rayon fashion yarns

EASTMAN Chromospun[®] with Metlon

Shantung novelty yarn of cellulose acetate, color-locked by solution dyeing, spun by Eastman Chemical Products Inc.; highly effective in tweed fabrics.

ENKA Skyloft[®] with Metlon

Solution-dyed, bulked, 2200 denier filament rayon carpet yarn, by American Enka Corporation, spun then lofted in steam jet for greater body and resilience.

METLON[®]
with MYLAR^{*}
METALLIC YARNS

*DuPont's Polyester Film

For detailed information, write to METLON CORPORATION, 432 Fourth Avenue, New York 16, New York • A Subsidiary of Acme Backing Corporation

New SANDOZ Foron® dyes up-grade fastness on polyester fibers

For an outstanding improvement in color fastness on polyester fibers, try the new SANDOZ Foron ultra-disperse dyes. Popular shades on these fibers can be matched now with available Foron dyes, and new dyes are being added rapidly.

SANDOZ Foron dyes have high affinity for polyester fibers in dyeing and printing, and provide excellent light fastness, wet fastness, and resistance to abrasion.

Recommended for coloring 100% polyester fibers, blends of polyesters with cotton or viscose rayon, and blends of polyester and wool.

For a complete exposition of what these new dyes can do for you, call in a SANDOZ representative.

SANDOZ, INC., 61-63 Van Dam Street,
New York 13, New York. ALgonquin 5-1700.

District Offices: Charlotte, Cincinnati, Fair Lawn, N. J.,
Hudson, Mass., Los Angeles, Philadelphia.



S A N D O Z
THINKS AHEAD WITH TEXTILES



How sport shirts can lead a more colorful life

..... when it's nylon

by **ENKA**

Your retail accounts will know that something wonderful has happened to your collection of textured nylon sport shirts when you change to Enka nylon yarn. That "something wonderful" is simply a matter of molecules. Enka nylon yarn for texturizing has a different molecular structure—creating a new softness, absorbency and comfort. No longer do colors ride lightly on the surface. Enka yarn literally soaks up color, producing deep, rich tones. All sharp, clear and uniform.

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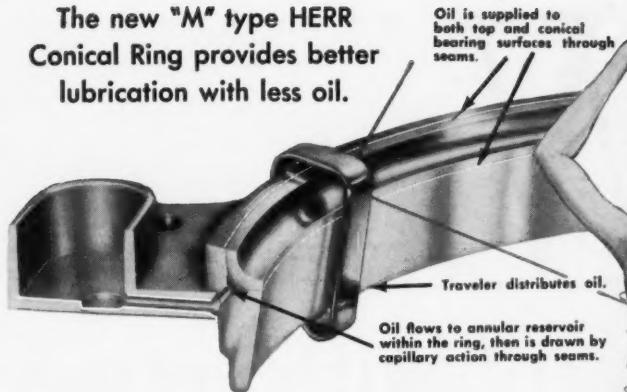
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ENKA NYLON
Yarns



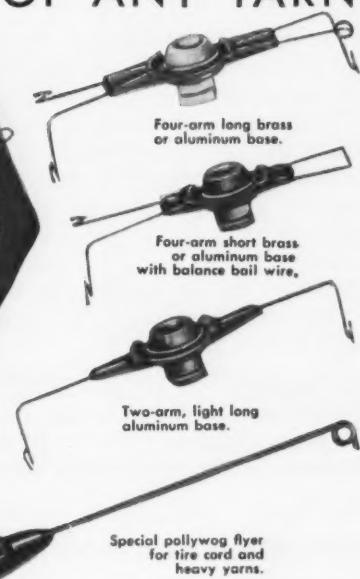
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The new "M" type HERR Conical Ring provides better lubrication with less oil.



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TWISTING
OF ANY YARN

with HERR.
New "M" type
Conical Rings and Flyers



In the mad rush to meet the popularity of knitted tights—the most extraordinary in years—the yarns made with Herr Conical Rings and Flyers are helping manufacturers meet high production operation with garments that have just the right stretch and fit. Tights made of HELANCA stretch yarns, produced with Herr equipment, have the curvy, stretchy, sleek look that brings the highest prices.

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New "M" Type Herr Conical Rings are self-lubricating with minimum oil consumption and long traveler life. Result is clean yarn, especially valuable in handling new bulk or stretch yarns.

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MANUFACTURING CO., INC.

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FOR SPINNING AND TWISTING WORSTED, WOOLEN, RAYON, NYLON, ORLON, FIBERGLASS AND BLENDED YARNS OF ALL TYPES

NOW

a whole new with cotton

It is now possible for you to produce without modification of your present equipment wash 'n' wear fabrics of superior properties.

Why? Because there is a new fiber of super strength rayon available. It is AVRON rayon.

The new fiber excels cotton for single fiber tensile strength in the conditioned state, approximates it for the same property when wet. AVRON is not degraded to the same extent as cotton by resin finishing and, added to cotton, it imparts a soft hand unattainable with cotton alone.

NO CHANGE IN TECHNIQUES NECESSARY.

Avron rayon may be worked through the cotton system without any modification of equipment. Because of superior tensile strength, spinning

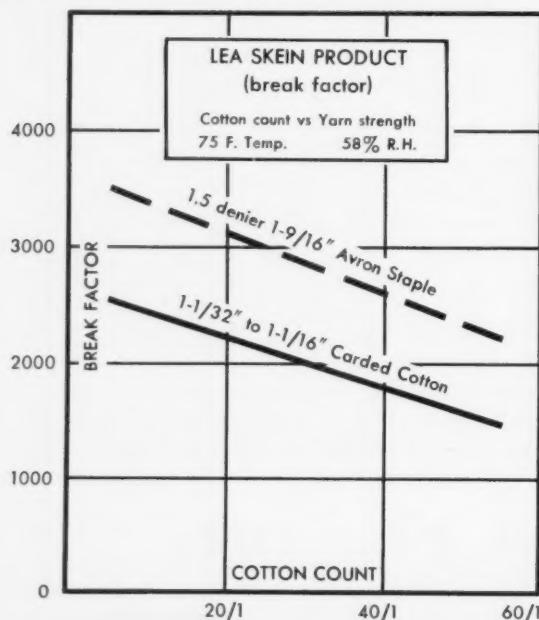
and weaving efficiency is higher for Avron rayon than for cotton. And in any drawing frame blend with cotton, less waste means a cost saving.

EASE OF DYEING. Avron dyes to any shade easily without changing your techniques. In fact, it has a greater affinity for dye than cotton.

LIGHTER FABRICS FOR SAME STRENGTH.

Because of the strength of AVRON fibers you can turn out lighter wash 'n' wear fabrics of the same strength as cotton, and a more even fabric because of the uniformity of AVRON yarn. Also, standard weight cotton constructions can be made with 75 to 100% greater tensile strength and tear strength.

PROPERTIES OF AVRON FIBER OF SPECIAL IMPORTANCE TO THE MILL . . .



Stress Strain	100% Cotton	100% AVRON
Single Fiber Tensile (grams per denier)		
Conditioned	3.65	4.07
Wet	4.20	2.96
Single Fiber Extensibility		
Conditioned	10.0	30.2
Wet	13.0	37.0
Moisture Regain, Adsorption	7%	12%

COMPARISON OF YARN PROPERTIES

	Cotton*	AVRON
Yarn Count (Cotton System)	30/1	30/1
Turns/Inch	24.0	16.5
Lea Skein—Strength (lbs.)	72	100
Product	2170	3000
Single End—Strength (ozs.)		
Conditioned	10.2	13.9
Wet	11.8	9.7
Single End—Product		
Conditioned	307	418
Wet	354	290
Single End—Extensibility		
Conditioned	6.1	20.0
Wet	9.3	24.0

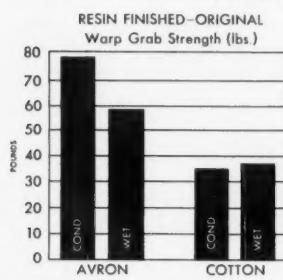
*1-1/32" to 1-1/16" Carded Cotton

(Finer count yarns can obviously be made from AVRON fibers)

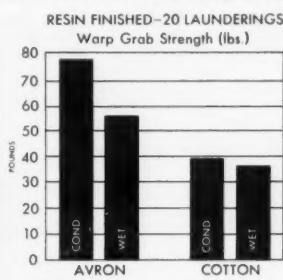
approach to wash'n'wear fabrics warp and **AVRON*** rayon filling high strength

COMPARISON OF AVRON AND COTTON IN FINISHED FABRICS

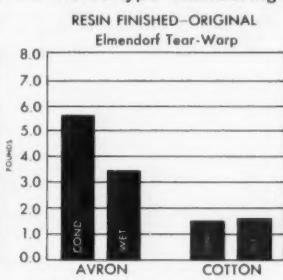
The following charts clearly demonstrate the superiority of AVRON over cotton.
Fabrics were tested before and after 20 home-type launderings at 140° F.



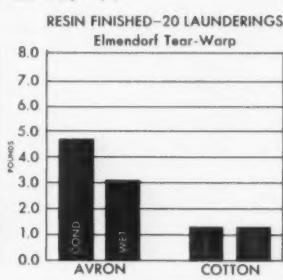
AVRON is about 123% stronger conditioned, about 60% stronger wet than cotton fabrics.



AVRON is 97% stronger conditioned, about 53% stronger wet than cotton fabrics.



AVRON is 273% more resistant to tear conditioned, 106% stronger wet than cotton.



AVRON is 262% stronger conditioned, 138% stronger wet.

HOW COMMERCIALLY-PRODUCED AVRON FABRICS COMPARE WITH MINIMUM REQUIREMENTS FOR WASH 'N' WEAR FABRICS, STATED BY NATIONAL ASSOCIATION OF SHIRT, PAJAMA, AND SPORT SHIRT MANUFACTURERS

136 X 60 COMBED BROADCLOTH

	Required	Cotton Warp AVRON* filling	% Im- provement
Filling tensile strength	25 lbs.	44 lbs.	76%
Filling tear strength	450 gm	1600 gm	256%
Wrinkle recovery	220	250	14%
Wash-wear rating	3.0-5.0	3.0-5.0	—

100 X 58 CARDED BROADCLOTH

	Required	Cotton Warp AVRON* filling	% Im- provement
Filling tensile strength	25 lbs.	40 lbs.	60%
Filling tear strength	450 gm	1600 gm	256%
Wrinkle recovery	220	250	14%
Wash-wear rating	3.0-5.0	3.0-5.0	—

*Trademark American Viscose Corporation

For additional information about AVRON fibers and fabrics write directly to
AMERICAN VISCOSA CORPORATION, 350 FIFTH AVENUE, NEW YORK 1, N.Y.

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WHAT TO LOOK FOR IN EASTMAN **KODEL**[®] THE NEW POLYESTER FIBER

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STAY-FRESH
FIBERS

- Excellent performance on all three standard spinning systems
- Good results with conventional production and dyeing equipment
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- Superior resilience
- Extra covering power
- Excellent dimensional stability without special processing
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Kodel is the trademark for Eastman polyester fiber

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Southern DURAWELD Shuttles offer at least 100% longer life expectancy with only a very moderate weight increase. They are made of finest quality Tempered Dogwood end blocks, for resiliency and tip retention, permanently bonded by an exclusive Southern method to long wearing wall sections of laminated wood or plastic.

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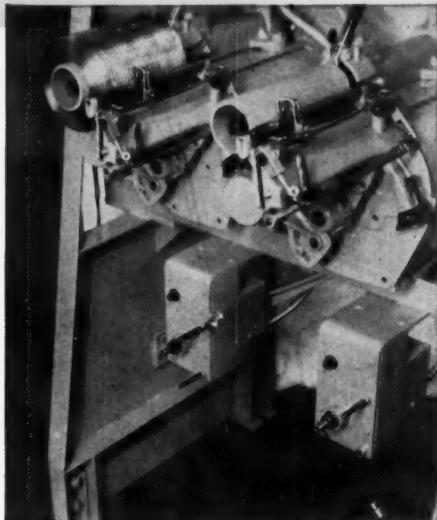
FOSTER TAKEUP WINDERS

For Meltspun, Wetspun and Dryspun Yarns

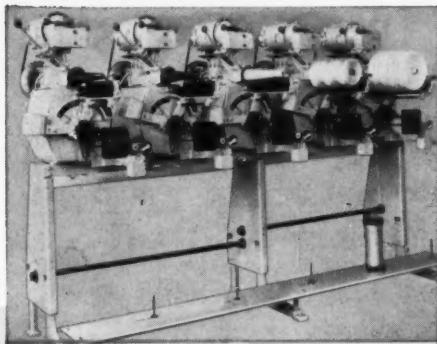
Custom Engineered to Your Requirements

MODEL 403

Working closely and confidentially, over the years, with leading producers of man-made fibres, we have found that the winding requirements of each differ in various ways. We have met these requirements both by adapting our standard models and by custom designing from the ground up. Here are a few examples.

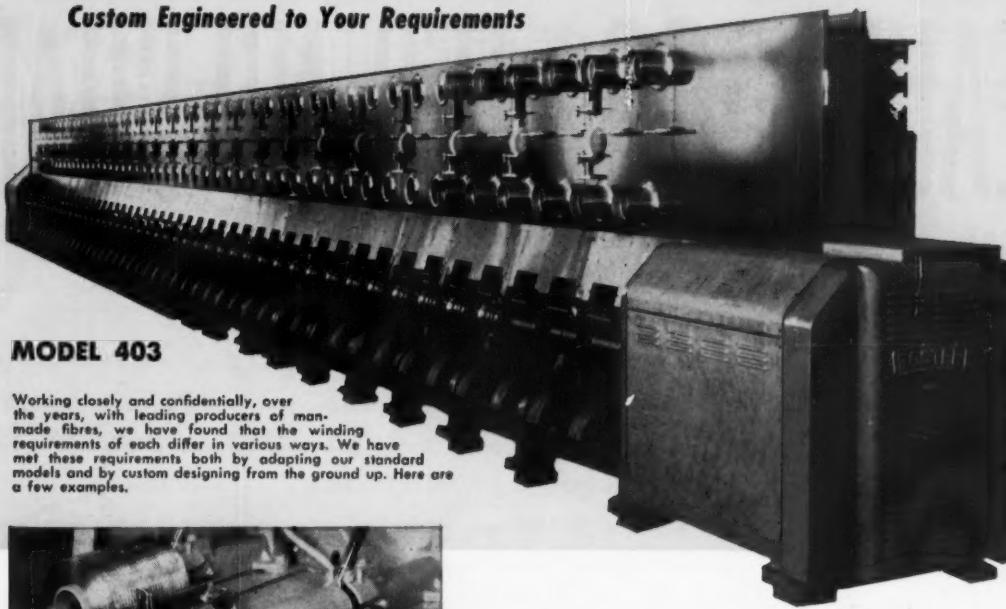


SECTION OF TENSIOMATIC



MODEL 78

638-8



MODEL 403 FOR MELTSPOUN YARNS

This machine was originally designed to the specifications of one producer, although the design has been modified from time to time to meet other specifications. Its major features are as follows: —

1. Ribbon breaker eliminates ribbon wind.
2. May be equipped to wind 4 packages with 1" traverse, 2 packages with 2½" traverse, or 1 package with 5½" traverse.
3. Pressure of package on driving roll automatically adjusted as weight increases.
4. Package core (6½" outside dia.) held by toroidal spring chuck, actuated by a handle which also serves as a brake.
5. Guards prevent yarn from wrapping around drive roll shaft.
6. Speeds up to 6000 feet per minute.

TENSIOMATIC FOR WETSPUN OR DRYSPUN YARNS

This is a standard model but is frequently modified to meet special requirements. It winds continuously direct from the spinneret to 6" traverse packages (1 or 2 per position), or to 10" traverse packages weighing up to 30 lbs. It delivers a precise wind at speeds up to 450 feet per minute. As the package builds up and the yarn speed increases, the speed of the motor is automatically decreased by means of dancer rolls and electronic control.

MODEL 78 FOR WETSPUN OR DRYSPUN YARNS

This machine, when used for takeup winding, is equipped with a torque motor and dancer roll mechanism. It is suitable for the coarsest yarns and winds 10" traverse packages up to 16" in diameter and 30 lbs. in weight.

What are your takeup winding requirements? We will work with your engineers, in the strictest confidence, to satisfy them.

FOSTER MACHINE COMPANY

A Yarn Winder for Every Purpose
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Muschamp Textile Machinery Ltd., Keb Lane, Bardsley,
Oldham, England



UNLESS WASH & WEAR HAS BEAUTY TOO... IT'S NO SOAP!

FOR
BEAUTY'S
SAKE
BLEND
WITH
COURTAULDS
FIBERS.....

If wash-and-wear hasn't got beauty, who wants to wash and wear it? Nobody! But if wash-and-wear is a delight to the eye and hand, everybody's your customer. That's where Courtaulds fibers come in. They're planned in the lab to glorify fabric—they're wonderful 100%—they make news in blends. And Courtaulds fibers actually improve wash-and-wear performance...reduce pilling and clinging to a minimum...retain quality to the full. Read all about Coloray, Corval, Topel. Blend with them. Do a *beautiful* wash-wear business with them!

COLORAY®

CORVAL™

TOPEL®

To make color beautiful, and keep it that way for a lifetime of wash-and-wear cycles, there's Courtaulds' solution-dyed Coloray. Flooded with color in the solution-stage. Solidified into a color fiber with exceptional glow, richness and—colorfastness. Coloray color is not affected by washing in the most severe water temperatures. Coloray fabric has been boiled at 212 degrees without streaking, running or fading. Coloray fiber also softens the hand of blended fabric—makes it lovelier to touch. And it blends with

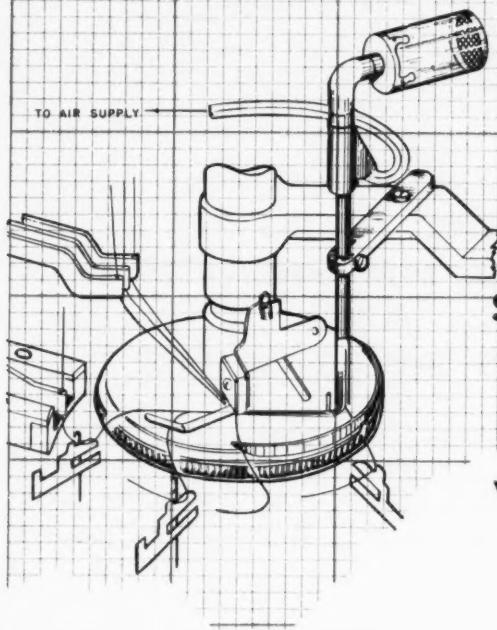
Wash and wear needs a beautiful look and a beautiful feeling. It gets both from Courtaulds' revolutionary cross-linked Corval, an amazing new cellulosic that produces woolen and worsted effects of great luxury in blends with synthetic fibers. Corval creates warmth, comfort, and rich dye-ability in all kinds of fiber combinations: with Dacron, Acrilan, Zefran, Creslan and Orlon—to name a few. Corval can also create crisp or lustrous fabrics—it is a highly versatile fiber as well as a beauty-maker.

To enhance lustre, texture and color, there's Topel, Courtaulds' cross-linked cellulosic fiber that blends most happily on the cotton system. Topel drinks dyes thirstily, makes color bloom. Topel is a millman's dream, produces extremely fine-looking weaves. Combined with Dacron, Kodel, Nylon or any performance synthetic, Topel produces fabrics of surpassing luxury as well as wash-and-wear ability. Topel is also blendable with natural fibers and agreeable to any finish.



Courtaulds (Alabama) Inc.; first in man-made fibers, first in cross-linking, first in solution-dyeing, 600 Fifth Avenue, N. Y. 20 • Greensboro, N. C. • Le Moyne Plant, Mobile, Ala.
Acrilan—Chemstrand's reg. T. M. for its acrylic fiber • Creslan—American Cyanamid's T. M. for its acrylic fiber • Dacron—DuPont's T. M. for its polyester fiber
Kodel—Eastman's T. M. for its polyester fiber • Orlon—DuPont's T. M. for its acrylic fiber • Zefran—acrylic fiber of the Dow Chemical Co.

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TEXTURED YARN SEMINAR



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There's an easy way to prevent end breakage and minimize streaking with textured filament yarns. Just change your copper creel tubing to plastic tubing. The filaments will glide smoothly through the plastic tubing to the needles without damage.

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FACT: Textured Filament Yarns and Spun Yarns are not the same.

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Fiber Sales and Service

National Aniline Division

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MODERN TEXTILES

Magazine

Publisher's Viewpoint

A Bright Future for Man-Made Fibers

As the busy autumn season of 1959 opens, the textile industry is enjoying a wave of satisfying prosperity. Mills are reporting good business; textile machinery manufacturers on the whole are pleased with the backlogs of orders on their books; and man-made fibers have never before enjoyed so high a prestige with consumers; nor have they ever before appeared in so great a variety in so many fabrics and textile end uses.

It can be said, as never before, that the man-made fibers have come into their own in the American textile industry. And even more importantly, they have come into their own in every aspect of American life. They are not only warmly accepted by consumers; they are relied upon to give service in apparel and home furnishings and industrial uses far beyond that given by the natural fibers.

The firmly established position of the man-made fibers is indeed a remarkable achievement when we consider that it has been accomplished in only 49 years. During that time the man-made fibers have come up from nothing to a current rate of production that may reach the all-time high of two billion pounds by the end of 1959.

The Best Is Yet To Come

Yet, despite this upward moving trend of production, it is the feeling among fiber producers and forward-thinking millmen, converters, and retailers that man-made fibers so far have just scratched the surface of the potential that exists for them. It is this awareness of greater markets ahead that provides the exhilaration making the man-made fiber industry so exciting and stimulating a field for those engaged in it.

Along with the awareness that great markets exist to be conquered is the excitement provided by the emergence, with virtually every month that passes, of new fibers offering new properties.

Newer Fibers on the Horizon

In recent months, for example, we have seen the announcement of new high wet strength

cellulosic fibers. We have learned of a new polyester that has aroused great interest throughout the textile industry, and we have had hints and suggestions that tomorrow will bring still newer man-made fibers with new and distinctive properties to provide new profit opportunities for everyone engaged in textile manufacturing.

In this issue of MODERN TEXTILES MAGAZINE, we are thus pleased to present our annual special report on profit opportunities in man-made fibers. In view of the current vitality and expanding output of these fibers, we feel that our special report will be timely and helpful to all segments of the industry eager to make use of the varied and ever increasing advantages of these fibers to find new roads to profitable business activity.

As a companion tool to our report on profit opportunities, we would also like to recommend to our readers our unique and very special Tables of Denier Numbers and Filament Counts of all U.S. Man-Made Fibers and Yarns. Offered in a ten page pull-out section that may be detached and kept for easy reference, the tables are a working tool for everyone who buys or specifies the various man-made yarns and fibers in his work. Reprints of both the special marketing section and the denier and filament tables are available at nominal cost.

A Bright, Exciting Future

Speculating about the future, we cannot help but be convinced that the next few years will be exciting, absorbing and challenging ones for the textile industry. And it is our belief that the excitement and the broadening of profit opportunities for all of us will be provided largely by the man-made fibers. We are certain that for the man-made fibers industry and for the textile industry generally, the best days are yet to come.



OUTLOOK

in textile marketing

A high point in textile boom?

By Robert C. Shook

A. W. ZELOMEK ASSOCIATES, INC.

There are two things that can be said about the textile outlook. One is that the long-term outlook, five to ten years, is better than it has been at any time during the entire postwar period. The other is that the present recovery has probably reached a more advanced stage than many observers recognize or are willing to admit.

The concern here is with the present recovery and the growing evidence that it is already reaching an advanced stage. These are the following points to be considered:

The textile cycle has not been eliminated. Accurate and timely information about distribution-channel inventories is almost entirely lacking. Thus it is impossible for mills to make any sort of accurate comparison between their own rate of fabric production and the rate at which fabrics are passing into ultimate consumption at the industrial or consumer level.

Operating in statistical ignorance, in a field where distribution channels are long and complex, it is as impossible now as it always has been for mills to prevent inventory accumulations through control of production.

The length of each cycle, from trough to peak, depends on the level of inventories at the low; the level of consumption during the period of advance; the speed with which textile activity increases; and the level of inventories at the peak. In the present case:

Total textile-apparel inventories in late 1957 and early 1958 are believed to have been the lowest in many years.

Consumption, by both industry and consumers, has shown a favorable trend. Retail sales on a dollar basis have been good. Even allowing for considerable trading up, there has probably been an increase in unit sales of 3 to 5% in 1959 as compared with 1958.

Textile activity between May, 1958 and May 1959, increased almost as rapidly as it did in 1949-50 (29% in 12 months against 32%).

In the 1949-50 recovery, textile activity, apparently having reached a peak in April 1950, was re-stimulated by the invasion of Korea and advanced another 10% by December of last year. The very sharp decline which followed in 1951 indicates the extent to which inventories had by that time become excessive.

The extent to which over-accumulation of inventories will extend the present recovery is as yet unknown.

However, retail inventories have been rising at least in line with increasing sales; and, since initial coverage of fall needs was as much as 30% higher than last year, it seems very likely that retail stock-sales ratios will move upward between now and the end of the year even if fall retail sales are as favorable as they are expected to be.

At the same time, converters and cutters have ample fabric supplies (inventories and receipts combined) to support a greatly increased rate of shipments to customers.

And at the mill level, the important point is not the level of gray-goods stocks, which is low, but the level of production and shipments, which is high.

What about shortages? The reasonable answer has to be "nonsense." Mill backlogs are high only because buyers all down the line have protected their needs much more liberally and much farther in advance than they did last year. Their needs for today, and next week, and next month, and the month after that, are generously protected by orders they placed in the second quarter, and even in the first.

Early deliveries are tight only for those who must try to contract for them now; and the volume of unsold spot goods is small only because the volume of contract goods, now being shipped, is so large.

The important question is not whether customers will be able to get what they need during the next three to six months, but whether they will be able to use all they get as their present orders are delivered to them.

An equally important question is how quickly there will be a sudden appearance of general secondhand selling—conclusive evidence that buyers cannot use all they have bought; that then-current production and shipments are above consumption; and that the peak in the cycle has been reached or passed.

In an earlier discussion of the textile outlook, (MTM Feb. '59 p. 20) a doubt was expressed that mills could limit production to a five-day, three-shift basis. So far this year, looms have averaged more than 120 hours a week.

There is as much insistence now that lower new crop cotton prices will simply enlarge mill margins, leaving the gray goods price structure unchanged, as there was then that 120 hours per week was a top limit on loom activity.

(Continued on Page 44)

Avondale Mills'

CRAIG SMITH

Hard-working, capable and decisive, the grandson of B. B. Comer heads a close-knit, happy team of executives who are leading Avondale Mills to new successes as a producer of quality fabrics

By the Editors

AVONDALE MILLS is a big textile operation. With nine sizeable plants scattered about in seven communities of Alabama, mustering all told some 240,000 spindles and 3,500 looms, manned by 4,000 workers, Avondale stands well up among the important producers of fabrics in the United States. The man who bosses this company, president J. Craig Smith, has won a reputation for himself as a textile executive who gets things done quietly and efficiently. Under his leadership, Avondale has gained in a highly competitive textile market on the strength of the high quality, fashion rightness and increasing diversity of its fabrics. And equally important, under Smith's leadership Avondale has stepped up the pace of its modernization program. Today there are few mills better equipped or more smartly maintained than Avondale's plants.

Craig Smith has been fortunate in building his reputation as a successful mill executive to have the full support of his uncles, the travel-loving, loquacious and enormously colorful Comer brothers, Donald and Hugh, the sons of the legendary Braxton Bragg Comer, founder of Avondale Mills and governor of Alabama in his time. For many years, throughout the textile and garment manufacturing industries, the name Avondale meant the Comers and the Comers meant Avondale. Two better salesmen never existed than Donald and Hugh Comer, and today they are still genial, entertaining and popular ambassadors of good will for Avondale, constantly on the move, constantly active in its interests.

In recent years, however, Donald and Hugh have been glad to shift the burdens of executive responsibility to Craig Smith and a team of capable executives behind him. Donald, as much as ever Avondale's roving sales missionary to customers and the textile trade in general, serves as chairman of the executive committee; Hugh, still telling his wonderful stories about the early days with the "Governor", is active in community affairs making friends for Avondale,

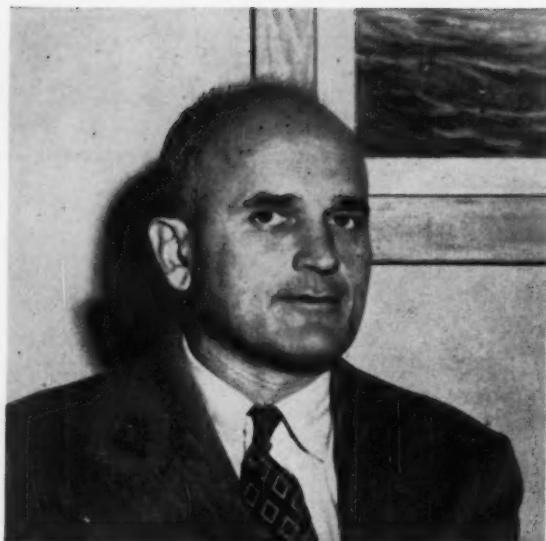
writing his bi-weekly safety sermon for the company newspaper, and in the mill management filling an advisory role as chairman of the board of directors. Both brothers have a deep respect for the nephew whom they selected to follow in their footsteps as president of Avondale.

A soft-spoken, somewhat reserved man with little of the genial folksiness of his two famous uncles, Craig Smith is the son of Governor B. B. Comer's daughter Mignon and her husband J. Craig Smith. After graduation from Virginia Military Institute in 1925 with an A.B. degree, he went to work for Avondale as a cotton weigher. In time, Smith moved ahead from weighing the cotton bought by the mill to classing it, and then to the skilled and delicate task of buying the fiber.

In learning by doing the arts of cotton classing and buying, Smith had capable and stern teachers. His grandfather old Governor B. B. Comer himself was keenly interested in cotton procurement as he was in all phases of Avondale's activities. He often stopped by on his tours of the mill to observe with a critical eye his grandson's work on the mill platform where cotton was weighed and traded.

The kind of instruction that young Smith received in cotton buying from the Governor is perhaps best exemplified by an anecdote told by Hugh Comer. Hugh, in his time, had also learned the fine points of cotton buying from the same instructor. "The governor," Hugh Comer is fond of recalling, "used to tell me to weigh the cotton as carefully as if the seller himself were standing behind me looking over my shoulder at the scales."

With the aid of such scrupulous principles and his own whole-hearted and unsparing devotion to his job, Craig Smith by the time he was 25 was skilled enough in cotton know-how to pass the Department of Agriculture examination for a certificate as a "qualified person" to grade and "staple" cotton. That



Donald Comer, Jr.
EXECUTIVE VICE PRESIDENT

same year, he became the chief cotton buyer for Avondale, and spent a great deal of time traveling the back country areas of Arkansas, Mississippi, Alabama, and Texas buying cotton from growers and at country gins.

His job as chief cotton buyer led him to study and become deeply familiar with the raw cotton market, the complications of trading in futures and similar matters of an intricate financial nature. Smith revealed in this work an understanding and natural grasp of financial matters. In time he became the chief financial man in the management of Avondale. In 1945, he was chosen to be executive vice president. In 1951, he assumed the position of president and treasurer—two jobs at Avondale which have been combined since the mill's founding days back in the first decade of the century. In those days, Governor B. B. Comer was indubitably the head man, a job which among southern mills has always carried the title of president, but in the New England mills has gone to the treasurer. To make sure that no one in Alabama where he ran the Avondale mills and in the North where he often went to sell fabric and handle financial matters would fail to understand that he was the boss, the Governor took both titles for himself. The practice has been observed at Avondale ever since.

A Fact Overlooked

Craig Smith is well aware that he is president and treasurer of Avondale Mills, not only because of his demonstrated abilities and hard work, but because of the fact that he is a grandson of the founder and a member of the family that owns a controlling interest in Avondale. In this connection, he likes to tell about an incident that happened not long ago. He had been invited to be the speaker at a meeting of cotton growers in Arkansas. The chairman, introducing him, told how Smith had started out as a weigher on the platform of Avondale's Birmingham mill and in time had risen to be president.

"He did not at any place in this glowing introduction" Smith says with a smile, "mention that my grandfather had founded Avondale Mills. When I stood up to speak, I felt it incumbent upon myself to let the audience into this little secret."

When Smith became president of Avondale in 1951, the company, like all large fabric manufacturers, was entering a new period in which competition was to be keener, profit margins lower, and the requirements of customers for both quality and styling of goods more stringent than ever before. To the challenge of this new era, Smith has provided the leadership which has enabled Avondale to maintain and even better its position as one of the country's most respected producers of colored yarn woven goods and the largest producer of cotton sales yarns.

Quality Upgraded

As president, one of the first tasks Smith undertook was the painstaking upgrading of quality of Avondale's fabrics and yarns. He put in an effective, well-staffed quality control department, and he sharply tightened up Avondale's policy of buying the best raw materials—which of course meant largely cotton—that money could obtain. More recently, under Smith's direction, Avondale has taken the further step of licking the "cotton problem" that plagues the industry today, by setting up its own standards for grading cotton—standards it believes are more strict than the conventionally observed government grades.

Along with severe insistence on high quality from raw cotton to finished fabrics and sales yarns has gone a speeded up modernization program. The result has filled Avondale mills with the latest and best machinery available. The importance Smith attaches to this kind of modernization is well pointed up in his "president report" in Avondale's report to its 1000-odd stockholders for the year ending August 31, 1958.

"We spent for machinery last year \$1,082,166.86," Smith wrote. "Most of this money was spent for new roving frames and new spinning. During the year we reduced our manufacturing cost more than one million dollars. A major part of this reduction was possible because of our program of modernization. There is no standing still in this respect." This conviction on Smith's part of the need to keep moving forward in re-equipping Avondale's nine plants with the newest machinery available, is a segment of his broad over-

(Continued on Page 81)



John C. Fay
VICE PRESIDENT AND COMPTROLLER

The millman's guide to TEXTURED NYLON YARNS

Part 2

Here is the final installment of our encyclopedia of useful data on textured nylons prepared by experts of the Chemstrand Corp.

STRETCH YARNS (CONVENTIONAL)

Helanca

"Helanca" is a registered trademark of the Heberlein Patent Corp. The batch-type, conventional method for the production of "Helanca" stretch yarn consists of the following basic operations:

1. Uptwisting on conventional twisting machines to between 45 and 125 turns per inch depending on denier and effect desired. (65 to 75 turns per inch are commonly inserted when processing 70 denier yarn.)
2. Heat-setting in a pressure steam box at approximately 260°F for one hour or less.
3. Untwisting through zero.
4. Doubling if required, coning, etc.

Characteristics of "Helanca"

Ability to stretch 300% or more in heavier deniers and 400%-500% in lighter yarns; bulk increased at least 300%; a firm and crisp hand; good recovery from stretch.

A typical "Helanca" textured yarn of nylon produced by the conventional twist-heatset-untwist method is shown in Figure 10. Note: Through an agreement with the Heberlein Patent Corp., the producers of false-twist type stretch yarns such as "Fluflon" and "Superloft" can procure the right to label their yarns with Heberlein's "Helanca" trademark.

Whereas the conventional method for producing "Helanca" textured yarn is a batch type process, the false-twist methods for producing "Helanca" are continuous ones. "Helanca" textured yarn—whether produced by conventional or false-twist methods is

characterized by a left or right hand torque depending on the direction of the high twist. Torque can be neutralized and balanced yarns and fabrics obtained by:

- a. Plying yarns of opposite twist on a doubling frame (2, 4, or 6 ply yarns are most common).
- b. Alternating yarns of opposite high-twist in the fabric.
- c. A special method of processing the yarn (see "Helanca" NT, below).

Some end uses for "Helanca" textured yarn: tights; briefs; leotards; slippers; socks; stockings; gloves; girdles; swim suits; foot protectors; men's and women's underwear; sweaters; dresses; woven and knitted fabrics.

Helanca Hi-Test

The trademark "Helanca" Hi-Test is used to designate "Helanca" yarn with maximum stretch, which complies with quality standards set by the Heberlein Patent Corp.

Helanca SP

"Helanca" SP identifies a yarn of high elastic pull specially prepared for use as a warp yarn in the weaving of ski-pants-like material. "Helanca" SP is produced on conventional uptwisters by the twist-heatset-untwist method.

STRETCH YARNS (FALSE-TWIST TYPES)

Several years ago it was realized that the tremendous future of stretch-type textured yarns was likely to be jeopardized unless an alternative method to the twist-heatset-untwist method could be developed. In

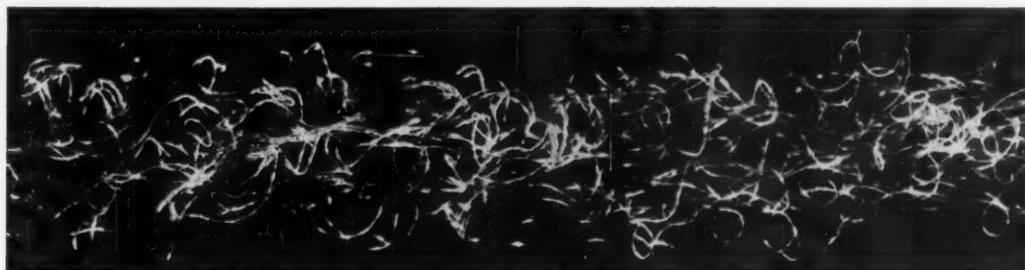


Figure 10—Photomicrograph showing a conventional Helanca textured yarn of Chemstrand nylon.

consequence methods involving the false-twist principle were developed which:

- Reduced the number of operations by enabling twisting, heat-setting, and untwisting to be carried out continuously in one operation on one machine.
- Speeded up the process.
- Eliminated unnecessary handling of the yarn.
- Enabled production from each spindle to be greatly increased both by virtue of the fact that a double-pass is eliminated and also because it is possible to run small false-twist spindles at higher speeds than conventional spindles.

Principle of False-Twist Method

The continuous filament yarn is fed through a false-twist spindle on the uptwisting side of which it passes through a suitable heating device where the high-twist is permanently set. The number of turns per inch to be given and the number or r.p.m.'s of the false-twist spindle determine the rate of production. Of the yarn coming from the false-twist machine, one component having "S" twist is usually combined with a "Z" twist partner to give a balanced torqueless yarn unless single ends are required for special purposes. Finally the yarn is coned and shipped. The threadline diagram of a typical false-twist type stretch yarn process is shown in Figure 11.

Two of the most important false-twist methods for the production of stretch yarn at the present time are the Superloft process and the Fluflon process. "Superloft" is a registered trademark of Universal Winding Co. "Fluflon" is a registered trademark of Marionette Mills, Inc. "Superloft" textured yarn may be produced on either:

- Universal Winding Co.'s Number 550 Superloft machine or
- The number 551 Superloft machine—i.e., the No. 550 machine converted to high-speed spindles, or
- The Number 552 Superloft high-speed spindle machine.

A 216 spindle No. 550 Superloft machine will replace approximately 1000 conventional spindles. It

does this by reducing to a single continuous operation all of the steps previously necessary for the production of stretch yarn by the conventional method.

One high-speed continuous operation takes the thermoplastic yarn from the supply package, twists it, permanently heat sets the twisted yarn, untwists it, and takes the stretch yarn up on packages ready for further processing.

A schematic diagram of the Superloft process is shown in Figure 12. Note that the creel is placed low

(Continued on Page 50)

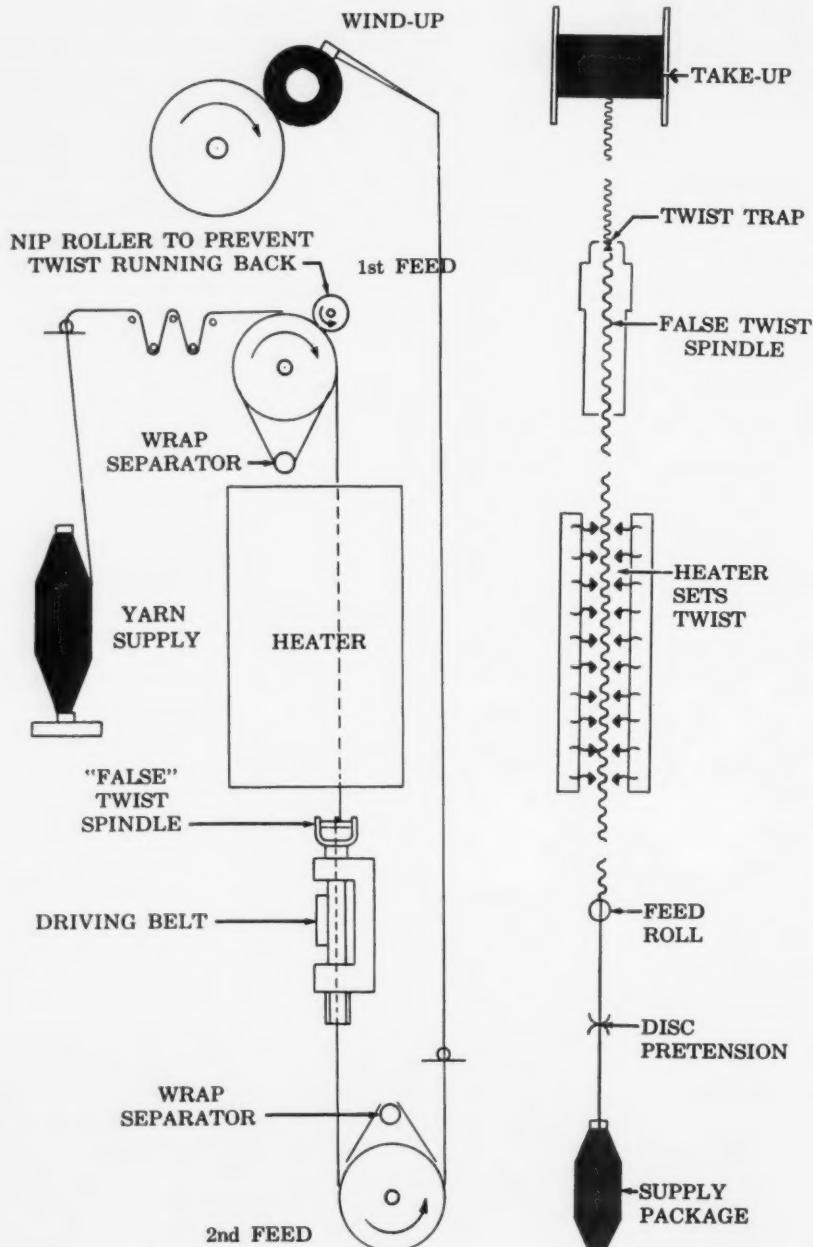


Figure 11—Threadline diagram of a typical false-twist stretch yarn process.

Figure 12—Threadline diagram of the Superloft process.

ARNOLD, HOFFMAN

ANOTHER FIRST

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Procinyl

fiber reactive dyes for NYLON and other synthetics

From the research laboratories of I.C.I. which developed Procion dyes, the first reactive dyestuffs for cellulose, now come the PROCINYL Dyes — the first reactive dyes for Nylon and other synthetics. PROCINYL Dyes combine excellent wet fastness properties with superior dyeing and leveling characteristics, to provide entirely new achievements in the field of Nylon dyeing.

PROCINYL Dyes can be applied to woven and knitted fabrics and to material made from bulked Nylon yarns.

Procion Dyes for Cellulose
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Both mean color fastness
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Both available only
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Procion and Procinyl dyestuffs and the processes for their use and application to textiles are the subject of patents and patent applications in the U.S.A. Trade marks of I.C.I. Ltd.

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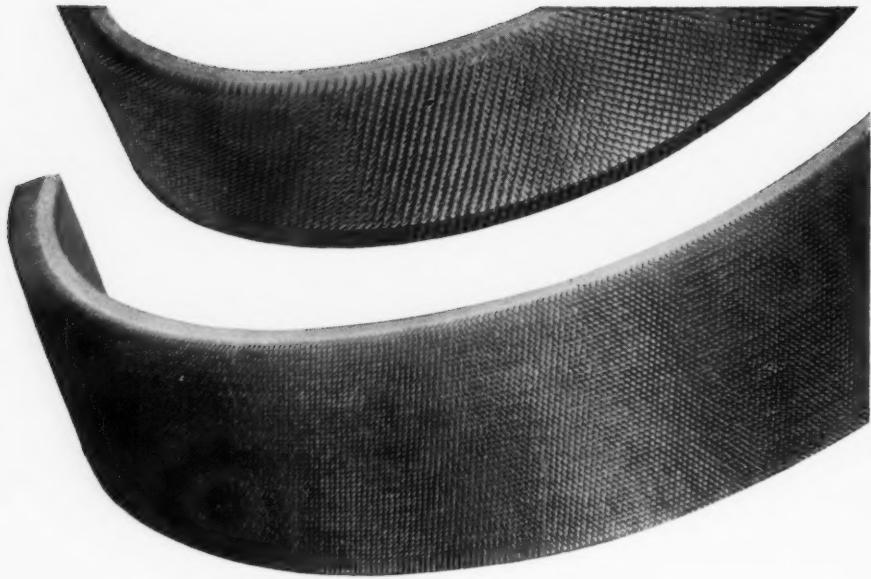
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- Top Flats re-covered and extra sets loaned at all Plants
- Lickerins rewired at Southern Plants
- Hand Stripping Cards

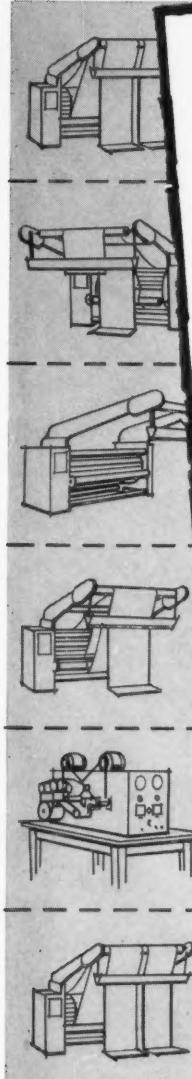
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Southern Plants: Atlanta, Ga., Gastonia, N. C., Greenville, S. C.

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- ✓ 1 HI-TORC is now doing the work of 5 nappers in a woolen mill
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- ✓ 1 HI-TORC is now doing the work of 4 nappers on unbleached cottons
- ✓ 1 HI-TORC is now doing the work of 2½ nappers in a cotton knit goods mill
- ✓ 4 HI-TORCS are now doing the work of 12 nappers on bleached cottons

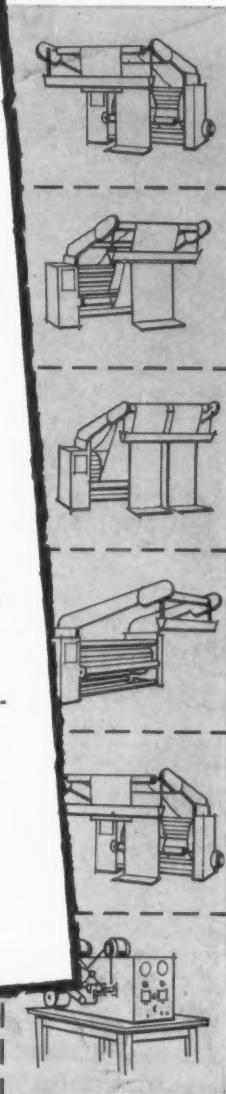
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Canadian Representative: W. J. Westaway, Montreal, Quebec; Hamilton, Ontario



No. 12 in a series—How your Du Pont salesman is backed by many sales-building activities, including Fiber Research, Technical Service, Fabric Development and Merchandising.

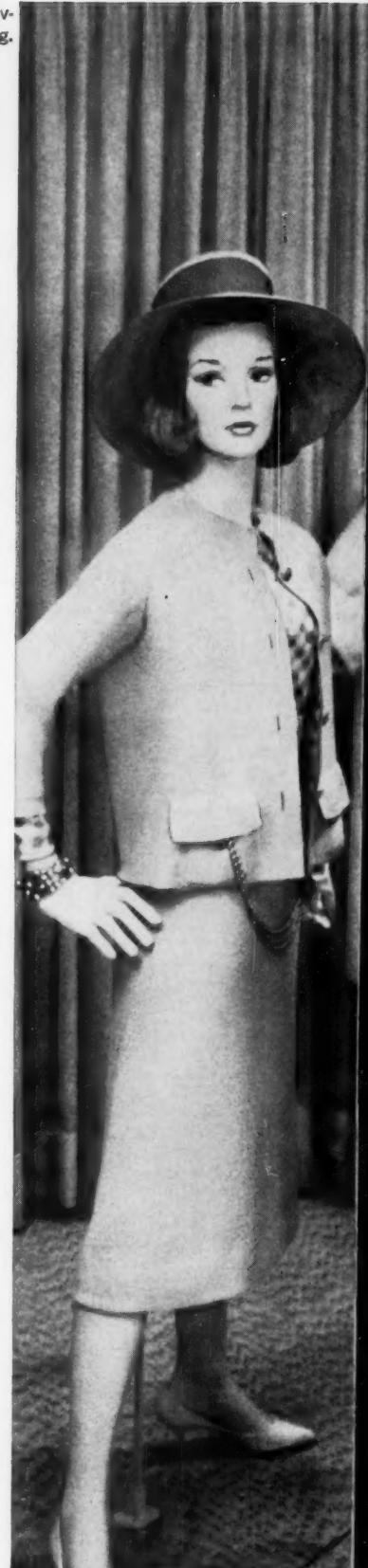
Mr. Arkin...the man from Du Pont ...and some arrivals from Paris

The gentleman on the right is Gomer H. Ward, fiber ambassador to Paris—otherwise known as Du Pont's Merchandise Manager for Dresswear. Mr. Ward and some of his associates fly to Paris twice a year. In fact, they have recently returned from the fall showings. Working closely with the outstanding personages of the Paris fashion world—Dior, Givenchy, Balmain and Cardin, Griffe and Goma, La Roche, Patou and Heim—Du Pont people show how Du Pont fibers can add beauty and utility to superb couture. So when the Paris creations are unveiled at the shows, Du Pont fibers are very much in the limelight.

After the shows, it's back to New York for Mr. Ward. And now, Du Pont sets up a showing of its own, right in the Empire State Building offices . . . a showing that features elegant examples of the happy marriage of Paris fashions with Du Pont fibers . . . a showing seen and studied by American cutters like Andrew Arkin (left) of Arkin, Inc., photographed here with Mr. Ward.

By stimulating manufacture interest in this way, we are broadening the market—*your* market and ours—for fabrics made with Du Pont fibers. Through your Du Pont salesman, you, as a customer, have ready access to a range of technical and merchandising information unique in the textile industry.

**From raw fibers to retail sales
... Du Pont helps build profits for you**



PRODUCT and PROCESS NOTES FROM DU PONT

New whitening agent for "Dacron"*

—"Uvitex"† ERN Conc. is a new effective whitening agent for garments made of "Dacron" polyester fiber. The product developed by Ciba Company, Inc., can be applied to fabrics by either the exhaust method or a pad-heat procedure at any convenient stage of processing and in combination with other treatments such as scouring, bleaching or finishing. Additional information on this technique can be obtained from Technical Service Section, Textile Fibers Department.

A new principle of spun yarns—The sheath-core principle is a new technique recently developed by Du Pont for spinning yarns of "Orlon"** acrylic fiber. Unusual aesthetic effects can be obtained in fabrics through the placement of fibers of different deniers on the surface or in the core of the yarn bundle. The principle utilizes the centrifugal forces of the spinning operations, as well as the high-bulk technique, working together to produce yarns containing a high-shrinkage core from fine denier fibers, in a low-shrinkage sheath of heavier denier fibers. These yarns possess unusual surface characteristics, plus good wash and wear performance, and improved resistance to shedding or surface distortion. The sheath-core principle offers diversity in styling, and has already been employed in a wide range of knit constructions from fine gauge (1/30's worsted count and above) to coarse gauge constructions using 2/15's worsted count yarn. Application of the principle has been largely in knitted fabrics with "Orlon" acrylic fiber—however, further development work utilizing this concept in other fibers and fabric constructions is now in progress.

"Acele"* acetate yarn**—The recently introduced 40 denier "Acele" tricot yarn has picked up extensive trade interest. This latest acetate yarn is designed specifically for superior lingerie fabrics made on fine-needle, 32-gauge knitting equipment. This new count is offered on 42" beams with as many as 1,360 ends per beam.

*Du Pont's trademark for its polyester fiber

**Du Pont's trademark for its acrylic fiber

***Du Pont's trademark for its acetate yarn

†Reg. trademark of Ciba Company, Inc.



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Some notes on SHUTTLELESS LOOMS

An English view

Reprinted from the New Scientist

IT IS FAIRLY CERTAIN that the readers of this article will be wearing outer garments of woven cloth, will sleep between sheets and blankets made from woven cloth, and will generally encounter woven cloth in various forms at home and at work. Almost all of this cloth will have been made on looms using shuttles to interlace the threads.

In perhaps twenty years' time this may no longer be true. Certain applications will probably be taken over by knitted fabrics, bonded fiber fabrics and extruded plastic mesh. Of the large proportion of woven cloth which will still remain, a significant quantity will be made on shuttleless looms.

Recent developments are particularly significant in this connection, as fabrics made in Britain on shuttleless looms have been made available to the public for the first time, in the form of cotton bed sheets. These sheets are being advertised, featuring their specially reinforced selvages. In general, the body of a fabric is not affected whether the cloth is made on conventional shuttle looms or not, but the edges of the cloth—the selvages—are usually significantly different, depending on the principle of weaving adopted.

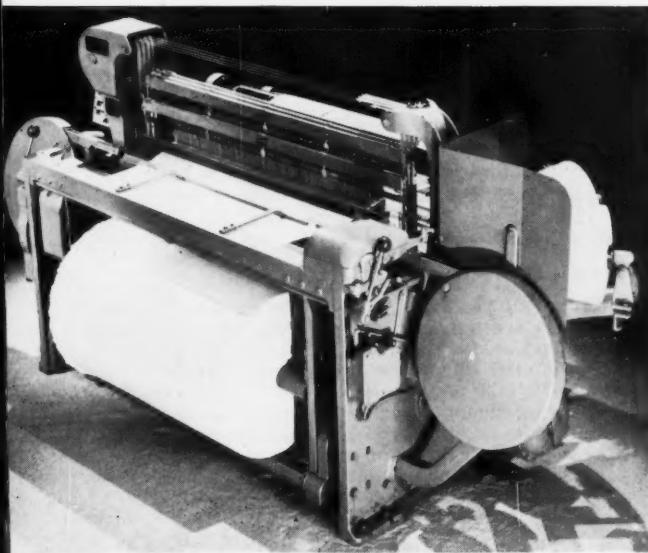
The disadvantage of shuttle weaving is that, in order to insert a length of filling yarn weighing perhaps one tenth of a gram from one edge of the cloth to the other, a shuttle and bobbin weighing about

500 grams must be rapidly accelerated to about 30 miles per hour, travel across the warp, and then be stopped—all this within one fifth of a second. The power requirements of the shuttle are about $\frac{1}{2}$ horsepower, almost all the energy being dissipated as heat and noise.

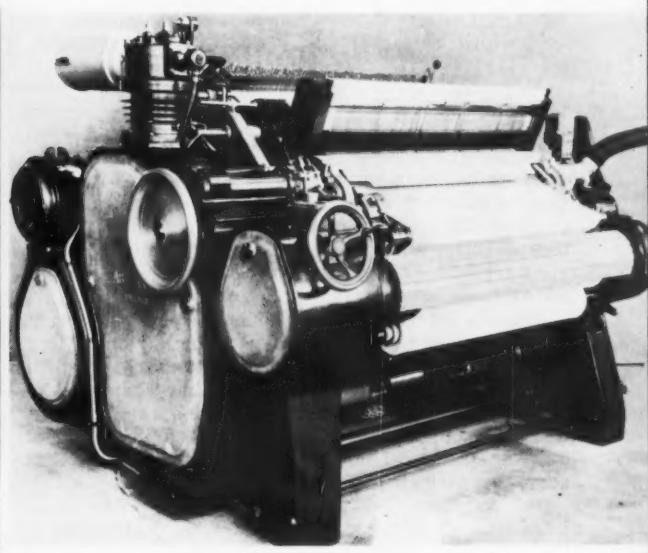
As an added complication, when the bobbin of filling inside the shuttle becomes exhausted it must be replaced, an operation normally carried out at full speeds on automatic looms. Winding the relatively small bobbins is an expensive operation in terms of both labor and machinery,

To weave at high speed from large filling bobbins which are not located in shuttles has been attempted for over a hundred years. However, only during the last decade have technical problems been completely overcome, so that today shuttleless looms are beginning commercial production.

One advanced shuttleless loom now running is made by the Swiss engineering firm of Sulzer Brothers Ltd. Filling threads are individually inserted by carriers, sometimes termed "dummy shuttles," each about the size of a small pen-knife and weighing 40 grams. After each insertion, the filling thread is cut near the selvage, the protruding tails of thread being turned back into the cloth to form the reinforced edge which is the special feature of fabrics made on this machine.



Draper's Shuttleless Loom



The Maxbo Shuttleless Loom

Each carrier acts for a single filling insertion, trailing the threads behind. The carrier is then returned at slow speed on a conveyor, to be used again. About fifteen carriers are used to replace the normal shuttle, each moving at nearly twice the usual speed of insertion. Being of small size, they do not require the same degree of separation of the warp threads, which reduces the strain on the warp. A 120-inch wide bed sheet can be made at 200 weft insertions per minute, which is double the rate of insertion used on an orthodox shuttle loom of similar width.

An entirely new method of insertion enables even the small filling carriers to be eliminated. This method utilizes a jet of air to blow the leading end of a piece of filling yarn across the warp, drawing behind sufficient thread to pass from selvage to selvage. The filling is first pre-measured on a rotating drum, and then guided through an annular nozzle through which a blast of air is sent at the correct moment. After each insertion, the filling is cut close to the selvage, ready for the next insertion.

Unlike the previous method described, no attempt is made to tuck the protruding tails of filling back into the fabric. Instead, a fringed edge is used which, while undesirable for some applications, can easily be made unfrayable.

The first loom in Britain utilizing a pneumatic method of filling insertion was recently installed in a Manchester College of Science and Technology, where it is producing 36-inch wide fabric at 320 insertions of weft per minute. This compares with about 200 insertions per minute on an equivalent automatic shuttle loom of orthodox design. The method is not particularly efficient so far as power consumption is concerned, about one horsepower being required for filling insertion. However, it is anticipated that improvements in the design of the pneumatic system will reduce power requirements.

The pneumatic method of filling insertion is very much quieter than that using shuttles. The method was invented by Max Paabo, an Estonian living in Sweden, where the loom is made. Another loom with similar filling insertion is being developed in Czechoslovakia, particularly intended for fabrics up to 18 inches wide. This is a non-standard width for most textile products, but since the manufacture of the loom has received government support, outlets for this width of fabric will presumably be arranged.

High Point in Boom?

(Cont'd from P. 32)

Nevertheless, when more new crop spot cotton begins to move at lower prices, in late September or October, the real test of these hopes and expectations will develop. Having large backlog, mills are in a strong position. Having covered heavily and far in advance, so are buyers.

What is the conclusion? About the speed of present textile recovery, the high rate of current operations and the rising level of total inventories, statistical evidence speaks for itself. An accurate estimate of the extent to which current shipments exceed current ultimate consumption is impossible on the basis of existing statistical data, but there is no doubt that some current excess is involved.

The only question, therefore, is when the accumulated excess will become great enough to put an end to the present recovery, and introduce an ensuing period of liquidation and decline.

Another method of shuttleless weaving involves the insertion of filling thread by means of rapiers or needles. This is becoming a popular method on looms intended for the production of narrow ribbons and tapes up to about four inches wide. Here the filling is not cut after each insertion, but is allowed to remain as a double loop. Insertions may take place from one side of the cloth only, or else from alternate sides. Needle insertion allows filling insertion rates at least double those obtained on narrow shuttle looms.

Recent developments in both Britain and the United States indicate that rapier insertion is likely to prove equally successful for the production of wide fabrics.

In describing shuttleless filling insertion, the increased speed of insertion has been particularly mentioned, as this leads to a considerable increase in the amount of fabric which can be produced by each loom. Commercially, what is much more important is that all the costs of labor and machinery associated with the winding of filling bobbins, and their placing into shuttles, can be eliminated.

Furthermore, by doing away with shuttles, many of the difficulties and irregularities of loom operation are removed. Shuttles are somewhat erratic projectiles, the mass of which varies as the filling bobbins empty, their frictional properties being affected with changes in atmospheric humidity and temperature. Shuttleless weaving usually offers more consistent loom running leading to fewer cloth faults.



Editor's note: Since this article was written, the Draper Corp., Hopedale, Mass., has introduced its new shuttleless loom which employs a modification of the rapier principle of filling yarn insertion described by the author. For a detailed description of this loom, the reader is referred to the January, 1959 issue of this magazine, page 22. Or he may write directly to the Draper Corp. asking for descriptive literature.

Also, the Maxbo loom mentioned above, will be manufactured in the United States by Southeastern Loom & Machine Works, a subsidiary of Abney Mills, Greenwood, S. C., under an agreement signed earlier this year with Swedish interests controlling patent rights. Edda International Corp. will handle sales of the loom in the United States.

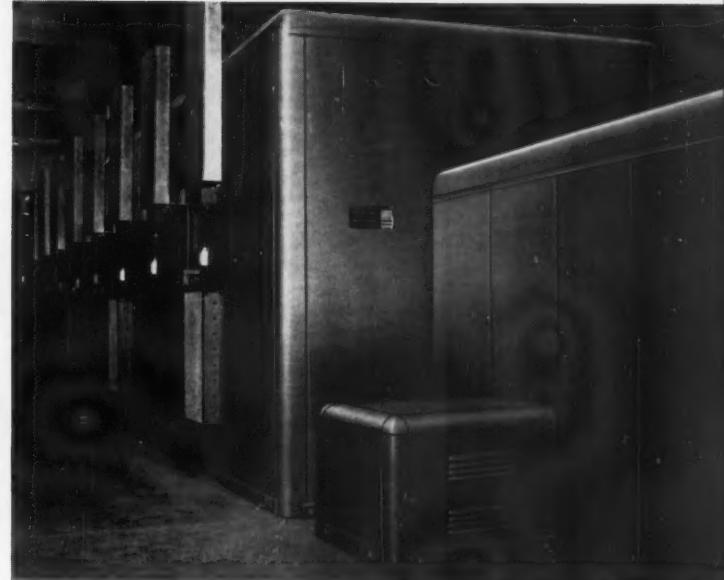
Barring some emergency, like the invasion of Korea in 1950, it seems unlikely that many of the measures of textile activity will exceed in 1960 the levels they will have reached during the last three or four months of 1959.

New Propylene Yarn Offered

Propylene yarn for use in woven outdoor furniture and auto seat cover fabrics is now being manufactured and sold by Industrial Plastic Co. Metuchen, N. J. Offered under the tradename "Tuff-Lite Pro-Fax Yarn," the new monofilament is said to possess a number of advantages such as extreme strength combined with exceptional lightness. The new yarn is also said to remain free from sagging when used in tapes and webbing; it retains its original tautness even under conditions of severe wear. Resistance to abrasion, staining and color change is said to be good. The yarn is available in a wide range of colors and is offered to weavers for quick delivery for use in 1960 lines. For further information write the editors.

DYEING and FINISHING SECTION

"NATIONAL" PERFORATED APRON CONVEYOR DRYER



Evidence of the outstanding efficiency and economy of this "National" drying unit is found in the number of existing and on-order installations among the Nation's leading chemical manufacturers.

Increased drying capacity per square foot of surface; improved uniformity of dried product; much easier apron cleaning; greater efficiency and accessibility of gas or steam heaters; and a generally neater machine to operate and maintain, are characteristics of this drying system resulting from unique and exclusive features of "National" design, construction, operation and control.

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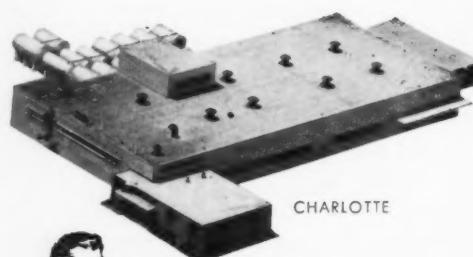
stanset D 40

This chemical reactor resin gives standout wash'n wear. It imparts lasting wrinkle-resistance and extremely high shape-retention to dress fabrics. Even after countless washings, fabrics



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treated with Stanset D 40 appear fresh, starched and clean-looking. For dress fabrics that "look younger longer" Stanset D 40 is the preferred product.

catalyst 100

Catalyst 100 is an all-purpose product with a wide range of concentration and curing conditions and is recommended for all types of resins. It affords maximum bath stability. With resins where chlorine retentive properties vary depending upon finishing conditions, however, Catalyst 100 should be used. Write today for samples and complete technical information on any or all of these products.



STANDARD CHEMICAL PRODUCTS INC.

HOBOKEN, N. J. • CHARLOTTE, N. C.

Printing with Emulsions

By Raymond W. Jacoby
DYEING & FINISHING EDITOR

PRINTING is sometimes described as "localized dyeing." To attain this the colorant must be applied to restricted areas. In screen and stencil printing the screen or stencil defines the areas covered by the colorants.

In machine intaglio printing the pattern is engraved below the surface of the print rollers. The print paste is applied to the print rollers; then a "doctor blade" scrapes it off the surface but leaves the paste in the engraved areas, after which it is transferred to the material being printed.

In order for the print paste to function properly during this operation it must have the right cohesion, adhesion and viscosity. These properties are necessary so that the print paste will:

1. Fill the engraving readily.
2. Be completely cleaned off the surface of the print roller but remain in the engraving.
3. Remain in place during the subsequent rotation of the roller.
4. Transfer completely to the material being printed.
5. Produce well-covered printed areas with sharp outlines.

The properties of print pastes are usually referred to as "body," and were obtained by the use of starches, converted starches, and gums. The increased use of pigments as colorants in textile printing has resulted in the development of a new concept of print pastes, that is, obtaining the proper "body" by the use of emulsions.

Two Classes of Colorants

The colorants used in textile printing are divided into two general classes:

- A. Dyes which have affinity for the fibers.
- B. Pigments which have affinity for the fiber but which adhere mechanically.

The latter group require a product which will bind the pigment to the fiber. For many years this binding effect was obtained by putting blood or egg albumen into the print paste together with the pigment. After printing, cloth was passed through a steam box containing formaldehyde fumes. The formaldehyde fumes coagulated the albumen, making it insoluble and binding the pigment to the fabric. Prints so produced were not very satisfactory because they were not particularly durable. With the development of synthetic resins which were thermo-setting, a new medium for the binding of resins became available. These materials resulted in the production of pigment prints with superior fastness, and so greatly accelerated the use of pigments in textile printing.

Emulsions had long been known and were used for numerous purposes. They were of two types: oil in water, and water in oil.

It was also well known that the viscosity of an emulsion could be varied by altering the amount of the inner phase. Here then, was a means of producing "body" in a paste without the use of comparatively large amounts of extraneous material. It was generally considered that these emulsions were not too stable as they were affected by various materials particularly electrolytes. However, very satisfactory emulsions could be prepared which contained thermo setting resins. The result was an excellent print medium for pigments and was a very great factor in the enormous development of pigment prints.

Emulsions Were Improved

Although emulsions gave very satisfactory results with pigments, their known instability discouraged efforts to use them with other colorants. Many possible users were firm in the belief that their sensitivity to numerous reagents precluded their use in fields where such reagents might be present. However, careful study gradually showed that more stable emulsions could be prepared and the field of possible use broadened accordingly.

As has been stated, the other class of colorants, used in printing is dyes having an affinity for the fiber. The dyes used are of different chemical groups, the principal ones being: vat, direct, acid, disperse, basic, agoic, fiber reactive.

These dyes have other materials present as they come on the market or require the use of other products in their applications. Among these are: dry diluents, dispersants, catalysts, wetting agents, other electrolytes. The production of an emulsion requires the use of an emulsifying agent. It is apparent, therefore, that in emulsion printing with dyes, products from six different classes may be required and there are a great many items in each class. Each item has its individual characteristics and the number of these items is almost countless. It is very evident that they will not all be compatible which is the reason why there are so many contradictory opinions as to the use of emulsions with the various types of dyes.

It is not unusual for a plant using a certain emulsion formula to obtain different results with the same dye from different producers. This may be discouraging, or make the subject of the use of emulsions appear too complicated. On the other hand the numerous advantages of the use of emulsions with any type of colorant are so great that there is a splendid opportunity for cooperation between the producers of colorants, the producers of emulsifying agents and the textile printers.

(Continued on Page 83)



PROFITS IN THE AIR—Holding sample of Zantrel fabric, these happy men foresee profitable future for Hartford's new fiber. Left to right: Dr. C. E. Coke of Hartford; Pierre Sillan of Burlington and W. B. Shepard of Hartford.

Hartford Brings Out New Fiber

Zantrel is the newest name in the growing list of trademarked names of American manmade fibers. Zantrel was introduced last month by Hartford Fibres Co., a division of Bigelow-Sanford Carpet Co. It is said by Hartford to be a "polynosic" manmade cellulosic fiber characterized by high wet modulus, comparable to cotton, and low wet swelling. Both features are said to contribute to dimensional stability which eliminates initial and progressive shrinkage in laundering.

For the DYER and FINISHER

New Hosiery Matte Finish

V-12, a combination softener and boarding agent said to give excellent dulling and delustering to produce a high fashion matte finish, is being marketed by W. F. Fancourt Co. The new product reportedly exhausts itself more readily in the dye bath and reduces production costs, and makes hosiery easier to handle. V-12 is also said to give hosiery new beauty while adding a new and different hand and easing operations. For further information write the editors.

New Defoamer

Emkay Chemical Co. has introduced Emka Defoam, for low cost foam and froth control. Water dispersible, it is said to be effective in acid and alkaline mixtures, compatible with most systems, and easier to handle because of its liquid form. Emka Defoam is recommended for industrial operations, compounding adhesives, coatings, paints, resins, and latex. For further information write the editors.

Washable Stain Repellent

Scotchgard brand stain-repellent for washable and wash-and-wear fabrics, introduced by Minnesota Mining and Manufacturing Co., is said to be the first stain-repellent that can withstand both laundering and drycleaning. Two Burlington divisions—Burlington Men's Wear Fabrics Co. and Mooresville Mills—have been licensed by 3M to make the new finish available for the spring 1960 selling season. For further information write the editors.

Reactive Brown Dye

Cibacon Brown 3GR is said to be the first reactive brown to be marketed anywhere, according to Ciba Co. It is a new member of the Cibacon dye family, with excellent light fastness and applicable on all types of equipment by conventional methods. It is suitable for direct printing on cotton, rayon, wool and silk. For further information write the editors.

Two New Sandoz Dyes

Sandoz, Inc., has placed on the market two new dyes. The first, Artisil Foron Brilliant Yellow 6GFL Pat. Ultradispersed, is a greenish yellow disperse dye with good properties on man-made fiber, especially polyester fibers. The second, Sandothrene Direct

The new fiber will be produced in the United States by Hartford under a license negotiated with Societe Chimiotex of Switzerland. Societe Chimiotex services the existing technological agreements between the foreign firms that produce the fiber and the rest of the world. These firms are Compagnie Industrielle de Textiles Artificiels et Synthétiques (CTA) of France, Fabelta of Belgium and Societe de Viscose of Switzerland. The agreements involve the production of manmade fibers, particularly Zantrel fibers which were developed by the four firms under certain Japanese patents.

Limited experimental quantities of Zantrel have been imported from Europe under the laboratory designation "Z-54" which is registered in Europe as a polynosic fiber, it was stated by C. Chester Bassett, Jr., head of the Hartford Division and vice-president of Bigelow-Sanford.

At a press conference in New York introducing Zantrel, it was also revealed that Burlington Industries for the past two years has been experimenting with the new fiber. Samples of fabrics developed by Burlington using Zantrel in blends with other fibers and in the 100% form were on display.

Hartford will begin production of Zantrel staple fiber at its Rocky Hill, Conn. plant sometime in the middle of 1960. Meanwhile it will import the fiber from CTA in Gauchy, France.

Along with dimensional stability, Zantrel fabrics are said to have crispness, fullness and drapability, and can be easily dyed in a full range of bright colors by conventional dyeing methods. Finishing is also said to be simple and conventional, and reportedly shows promise for improved wash-and-wear fabrics.

Bassett stated that the fiber would be available in 1, 1½ and 3 deniers at a price between 47 and 50 cents a pound.

Black NDPN, Double Paste Ultra-spacer, is a new vat black which is jet in shade. Its principal use is on goods demanding unusually high fastness to light, in light or heavy depths. For further information write the editors.

New Ecco Defoamer

Superior performance in practical field experience is reported by Eastern Color & Chemical Co. for its Ecco Defoamer KDX. The product, a white, stable viscous emulsion, is used in dye baths to control excessive foam.

The company has added Ecco FM 501 and FM 511 to its line of polyethylene resin emulsions for obtaining various desirable hands. These emulsions are anionic but stable to acidic as well as to alkaline solutions, once they themselves are in solution. For further information concerning the Ecco products write the editors.

Textile Chemical Catalog

Onyx Oil and Chemical Co. has published a data file catalog describing its complete line of textile finishing compounds. The file serves as a permanent catalog; from time to time, supplemental pages will be issued to describe new products and changes. For free copies of the data file catalog write the editors.

ASTRAZONS®

a new measure of tailored dyes

FOR ACRYLIC FIBRES

producing all shades from the
subdued to the spectacular

ASTRAZON YELLOW 8GL
ASTRAZON YELLOW 7GL
ASTRAZON YELLOW 5G
ASTRAZON YELLOW 3G
ASTRAZON GOLDEN YELLOW GLD
ASTRAZON ORANGE G
ASTRAZON ORANGE R
ASTRAZON ORANGE RRL
ASTRAZON ORANGE 3RL
ASTRAZON PINK FG
ASTRAZON PINK BL
ASTRAZON RED GTL
ASTRAZON RED BBL
ASTRAZON RED 5BL
ASTRAZON RED 6B
ASTRAZON BORDEAUX BL
ASTRAZON RED VIOLET FRR
ASTRAZON BLUE 5GL
ASTRAZON BLUE G
ASTRAZON BLUE FGL
ASTRAZON BLUE B
ASTRAZON BLUE RL
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BRILLIANT GREEN CRYSTALS
MALACHITE GREEN V CRYSTALS
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ASTRAZON YELLOW BROWN 2GL

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plus the well-known specialty products of

BAYER LEVERKUSEN • CASSELLA MAINKUR

Textured Nylon

(Continued from Page 36)

on the machine to provide the most direct path from supply to take-up.

Pre-tension increases feed roll traction to insure uniform feeding. Feed rolls equalize the tension on the yarn as it comes off the bobbin. They control the twisting tension by maintaining the rate of feed relative to the rate of take-up. All rolls on each side are gear-driven from one shaft to insure a uniform rate of feed on all spindles. Each roll is mounted on a pivoting bracket so that it can be disengaged from the driving gear. This simplifies threading-up when starting the spindle.

The ratio between feed and take-up speeds is not affected by motor speed variations or twist gearing, because the feed rolls are driven from one of the take-up roll shafts. A change gear system is provided in the drive for altering the feed ratio as required, to obtain the desired twist tension. The drive shaft is supported in open bearings and can be removed in sections, for cleaning and servicing.

A trough permits treating the yarn on the feed roll if desired.

An insulated contact heater sets the twist in the yarn. The heaters are built in sections designed to give uniform temperature from spindle to spindle.

Thermostats control temperatures to within plus-minus 5°F over all heating surfaces. Thermometers provide a visual check of these temperatures.

A spindle inserts twist between feed roll and twist trap, and removes the twist beyond the twist trap to produce stretch yarn.

The spindle is a hollow tube mounted in two high precision ball bearings.

Yarn take-up is arranged in two decks to obtain a spindle spacing of 2-3/4". One traverse unit and one twist unit and gear assembly are used for both decks.

Electrical controls are located at the motor end of the machine. They include time delay relay to cover temporary power interruptions, and two indicator lights which show the operating conditions of the machine. Available as optional equipment is a motor reversing switch for changing the direction of the twist.

End Uses for "Superloft"

"Superloft" textured yarn is used in similar applications to conventional twist-heatset-untwist stretch yarns—although somewhat greater diversification is possible.

Fluflon

"Fluflon" false-twist type stretch yarn is produced on conventional uptwisters fitted with the Fluflon attachment model #994 manufactured by Universal Winding Co.

End uses for "Fluflon" textured yarn are similar to those for "Superloft," namely: 10-30 denier, hosiery; 40-70 denier, hosiery, men's half hose & woven fabrics; 70-100 denier, men's half hose, woven & knit fabrics; 210-840 denier, upholstery and drapery fabrics.

Any differences between "Fluflon" and "Superloft" textured yarn are probably due to the different heat-setting techniques and different type feeds used in the two processes, viz: radiant heat-setting and constant tension for "Fluflon" compared with direct contact heat setting and constant supply rate for "Superloft".

A typical "Superloft" textured yarn of nylon is shown in Figure 13. A typical "Fluflon" textured yarn of nylon is shown in Figure 14.

(Continued on Page 54)

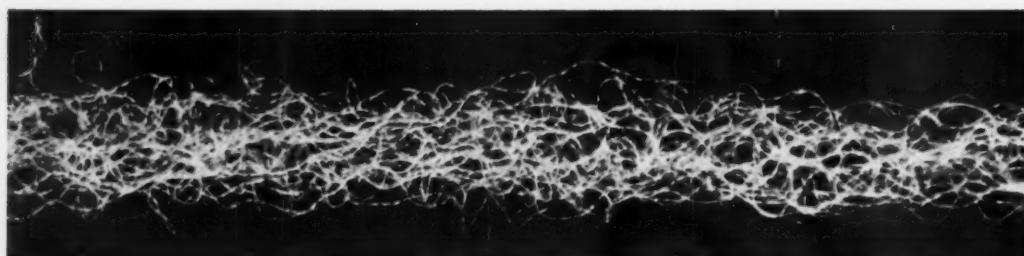


Figure 13—Photomicrograph showing typical Superloft textured yarn of Chemstrand nylon.

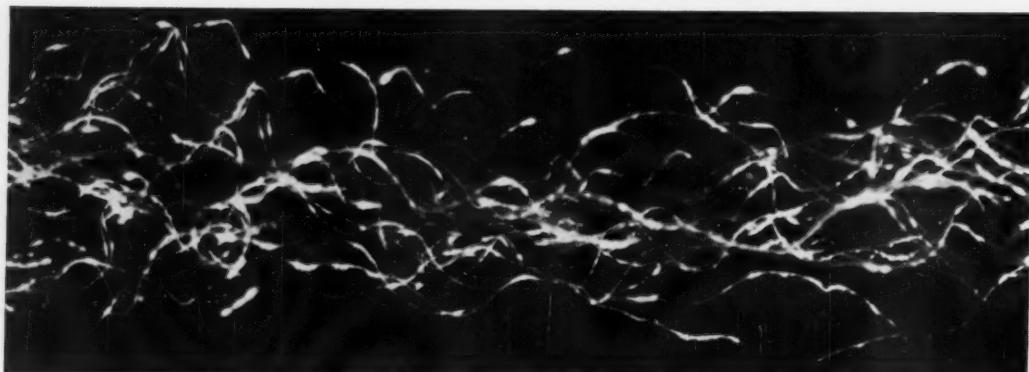


Figure 14—Photomicrograph showing typical Fluflon textured yarn of Chemstrand nylon.

**A NEW STANDARD
IN FINISHING COTTONS
AND COTTON BLENDS**

without **WASH AND WEAR
PERFORMANCE
WASH AND WEAR
PROBLEMS**

- ★ IMPARTS SUPERIOR CRUSH RESISTANCE
- ★ DOES NOT RETAIN DAMAGING CHLORINE AFTER COMMERCIAL OR HOME LAUNDERING
- ★ NO LOSS OF STRENGTH AFTER LAUNDERING
- ★ PROVIDES SUPERB DIMENSIONAL CONTROL
- ★ HIGHEST APPEARANCE RATING AFTER LAUNDERING

** Crush resistant
* Dimensional control
* NO DAMAGING CHLORINE RETENTION*

RESIPON N D C eliminates the major bug-a-boo of wash and wear finishes.....ODOR and CHLORINE RETENTION which causes loss of tensile strength after laundering.

RESIPON N D C is highly efficient for finishing broadcloth, particularly shirtings, and for application in all wash and wear finishing of cottons and cotton blends.

Here is the last word in wash-wear finishes, an achievement of ARKANSAS COMPANY, Inc. pioneers in the manufacture of textile chemicals.

Our technical service department will be pleased to work directly with you on applications of RESIPON N D C. Call or write us today.



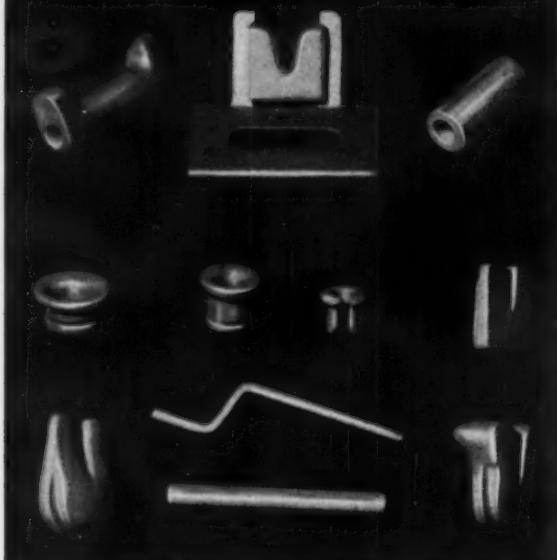
ARKANSAS CO., INC.

NEWARK, NEW JERSEY

Serving the Textile Industry for over 55 Years



Remarkable "TITAN-EIGHT" THREAD GUIDES BY LAMBERTVILLE!



**RADICAL NEW METHOD OF PROCESSING MEANS
LOWER COST!
FASTER DELIVERY!**

Now, for the first time . . . thread guides of "Titan-Eight"—the smoothest, most durable material available—are being offered at low cost with fast delivery! A completely new method of processing, developed by Lambertville, makes this possible. Any porcelain shape can be duplicated in "Titan-Eight". Send for free samples, for comparison in quality and price with your present guides. (Please specify shapes).



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LAMBERTVILLE: YOUR GUIDE TO BETTER OPERATIONS!

Coming Next Month SPECIAL REPORT ON MILAN SHOW

We agree that the best way to learn about the new textile machinery displayed Sept. 12-21 at the Third International Textile Exposition in Milan, Italy, is to go there in person and see for yourself.

But for those who weren't able to make the trip to sunny Italy, MODERN TEXTILES MAGAZINE next month will present a special report written by our European correspondent, an experienced textile journalist. The report will give you succinct, accurate insights into the most important new developments shown at Milan. Don't miss it.

Interest Strong in ATMA Show

Space in the American Textile Machinery Exhibition to be held May 23-27 is going fast. Officials of the American Textile Machinery Association which is staging the exhibit in the auditorium at Atlantic City report that more than 80% of the 300,000 square feet of space the exhibit will occupy has already been taken by firms planning to show their wares. The exhibit is said to be the first planned on a truly international scale in the United States.

When the show opens it is expected that more than 400 U. S. and foreign companies will display the latest developments in textile machinery, auxiliary equipment and supplies. Among textile associations scheduling their 1960 annual meetings for Atlantic City during the days of the exhibition are the Spinner-Breeder Conference; the National Association of Textile Finishers and the National Council for Textile Education. W. K. Child, Draper Corp., is president of ATMA while, the chairman of the Exhibition Committee is J. H. Bolton, Jr., Whiting Machine Works.

NEW FABRICS

Improved Tyrex Tire Yarn

An improved Tyrex rayon yarn is being produced in limited commercial quantities by American Enka Corp. The yarn is being turned out in 1,100, 1,650 and 2,200-deniers, and will be offered for third-quarter, 1959, in quantities of 5,000 to 25,000 pounds. Current Enka production of Tyrex yarns is more than twice that of June, 1958. The improved yarn is said to be the highest quality yarn for tires and other industrial uses ever produced by American Enka, with the emphasis on strength.

Tycora Cravats

The first men's ties made of Tycora yarn will be introduced for fall selling under the Rajah of Tycora label by Superba Cravats, Inc. The ties will retail at \$3.50. They are wrinkle-resistant and can be spot-washed or sponged. Tycora is the registered trademark of the Textured Yarn Co. for all modified yarns of controlled quality it produces.

New Cotton Carpet

Wunda Weve Carpet Co. is introducing a new type of loom-woven cotton carpet, called Wunda Vogue. The carpet comes in seven colors and is priced to sell at \$7.95 per square yard. The carpet, because of its construction and color combination, is said to create a new and different texture. Another 100% loom-woven cotton, Plush Tweed, comes in two new color combinations.

APEX *luxurious* Softeners

.... available for every fibre and construction.

VELVAPEX 214-250

For rayon-acetate and synthetic blends. Outstanding compatibility, versatility and stability in a variety of finishing mixes. Does not affect light fastness. Used with resins, silicones and dyers of all types.

VELVAPEX 8121

A liquid softener for use in all phases of tricot dyeing and finishing. Highly substantive to nylon and can be applied on whites treated with many optical bleaches. Eliminates scumming and finishing difficulties.

APEXOMIDE = 160

A white, nonionic softener for a high hand on cotton knit goods. Excellent resistance to high heat. Compatible with salts, weighters and fluorescent bleaches.



VELVAWAX = 6

Similar properties to Velvapex 214-250 but with additional built in resistance to needle cutting.

SOFTENER = 95

A white cationic paste softener imparting a smooth silky hand. Does not retain chlorine like most cationics.

ETHAPEX = 47

A white liquid polyethylene softener especially recommended for cottons. Imparts a soft, cashmere hand. Compatibility of a nonionic yet exhausts on to the fibre. Excellent for use with all types of resins. In package dyeing does not filter out and gives uniform, even results throughout the package. Eliminates needle cutting on knit goods. Does not cream, separate or curd on standing.

APEX CHEMICAL CO., Inc.

Manufacturers of Chemicals Since 1900

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Textured Nylon

(Continued from Page 50)

Yarn—textured by false-twist methods has residual twist or torque liveliness and if used in this form gives, for example, spiral knitted fabric. For this reason, it is usually plied with another yarn of opposite twist, or knitted in alternate courses or bands of courses with yarn of opposite twist.

The three main processing variables which effect both the appearance and physical properties of nylon textured by false-twist methods are:

- The amount of false twist.
- Heat-setting temperature.
- Degree of tension or overfeed.

STRETCH YARNS (NO-TORQUE TYPE)

Agilon

"Agilon" is the registered trademark for a curl-type non-torque stretch yarn developed and patented by Deering Milliken Research Corp. The Agilon process consists of running a continuous filament yarn through a heat zone and then around a knife edge—a procedure which deforms the filaments into a series of spirals and imparts elastic, voluminous, non-torque characteristics.

The process may be applied to both multifilament and monofilament yarn. In the latter case an almost perfect helix is obtained which reverses direction periodically. A line diagram of the process used for making "Agilon" yarns is shown in Figure 15. Typical "Agilon" textured yarns of nylon are shown in Figures 16 and 17.

Monofilament "Agilon" yarn has had commercial success in both seamless and fully fashioned stockings. It gives an elastic fabric which fits well, and has a pleasing matt appearance. Since "Agilon" is a non-torque yarn it can be knitted on single carrier machines. "Agilon" textured multifilament yarn is used in knitted outerwear, underwear, carpets, and is now being developed for weaving.

Helanca NT (No-Torque)

"Helanca" NT is a no-torque stretch yarn which has been produced on false-twist machines in such a

manner as to alleviate the necessity of balancing "S" and "Z" torques in the final yarn or fabric. "Helanca" NT yarns may be woven or knit in the single form without fabric distortion. Some typical end uses are stockings and underwear.

(Continued on Page 58)

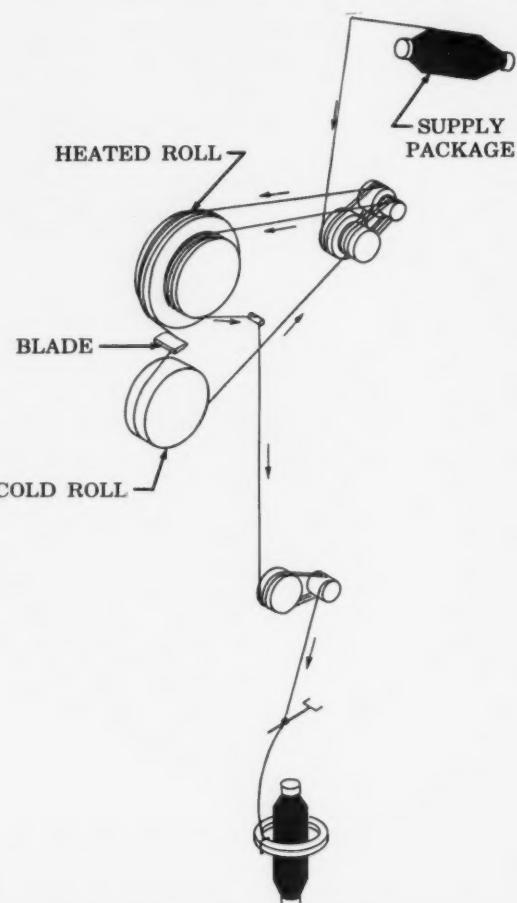


Figure 15—Threadline diagram of the Agilon process.

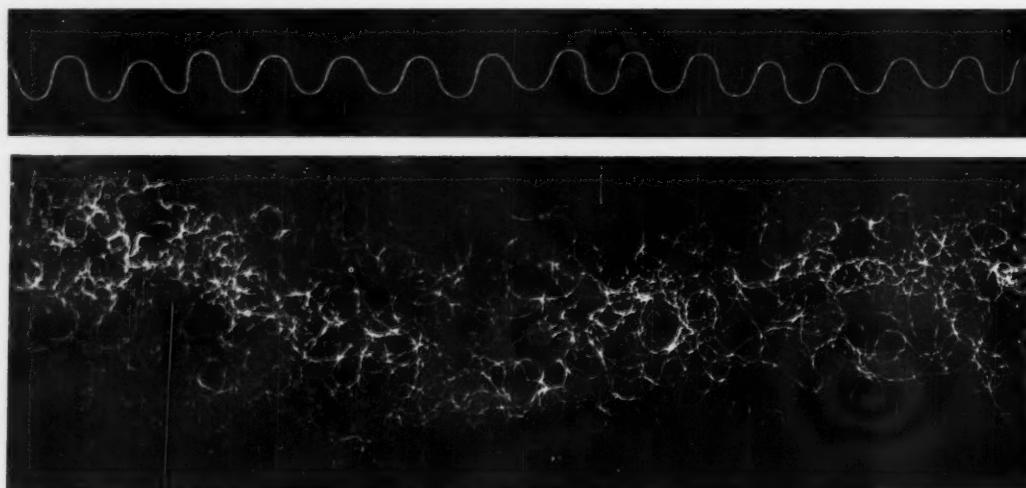


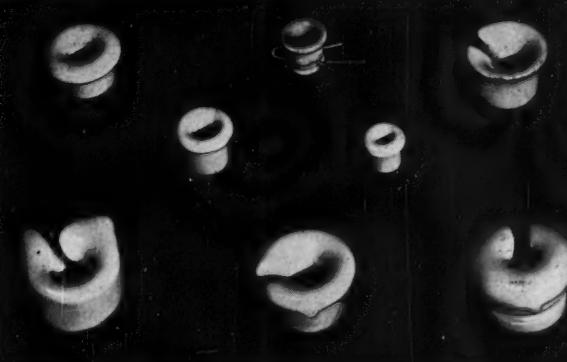
Figure 16 (Top)—Photomicrograph showing Agilon monofilament yarn of Chemstrand nylon.

Figure 17—Photomicrograph showing typical Agilon multifilament textured yarn of Chemstrand nylon.

MACHINERY and EQUIPMENT SECTION

MITCHELL-BISSELL THREAD GUIDES

For Every Textile Service
... For More Than 70 Years



Right—CHROMIUM PLATED STEEL GUIDES.

The plating on Mitchell-Bissell Chromium Plated Steel Guides is harder and denser than on any other wire guides. Our methods of fabricating and polishing develop a surface smoothness, with a mirror finish far beyond usual commercial standards. Because of their superior resistance to thread wear these guides are used extensively on machinery for processing rayon and nylon yarns and also for many other severe applications. Also available in Satin Finish.

Below—ENAMELED IRON GUIDES.

Where wire guides are desired, and service conditions do not require chromium-plated guides, our Enamelled Iron Guides give exceptionally good service, with a low initial cost. Made with the care and craftsmanship that are standard practice on all Mitchell-Bissell products, these are recommended as centering and ballooning guides, and for cotton, woolen and other soft yarns.



Above—"BLUE SATIN FINISH" PORCELAIN GUIDES.

An exclusive development of Mitchell-Bissell—guides with this finish are more resistant to thread wear than any glazed porcelain guides ever offered the industry. "Blue Satin Finish" Guides, instead of being shiny and glass-like, have a surface of thousands of small rounded grains closely packed together. Reduced wear and longer guide life result because, by breaking the continuity of contact between yarn and guide, friction is reduced. * U. S. Pat. No. 2,152,136.

Left—WHITE GLAZED PORCELAIN GUIDES.

The Mitchell-Bissell Company originated the use of porcelain as a thread guide for the textile industry. The white Glazed Porcelain Guides shown here are representative of thousands of patterns that have been sold to all branches of the textile industry since this company was founded over seventy years ago. Improved in quality from time to time they are still "standard."

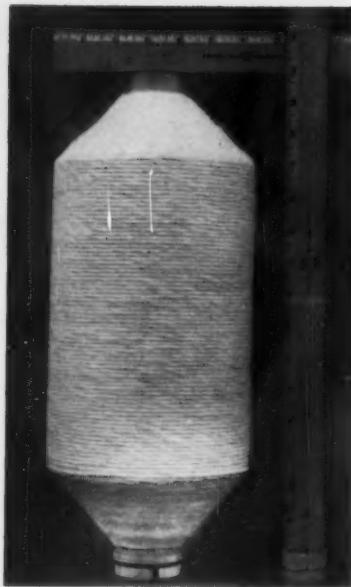


MITCHELL-BISSELL CO.

TRENTON, N. J.

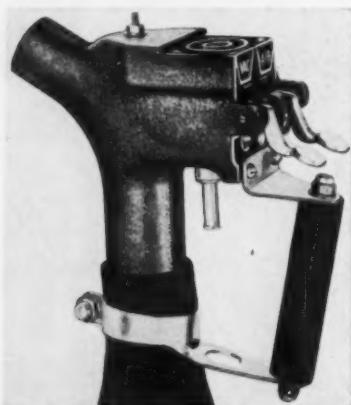
Southern Representative: R. E. L. Holt, Jr., & Associates
Greensboro, N. C.

NEW MACHINERY EQUIPMENT



Large Roving Packages

Whitin Machine Works has announced new economy-size roving packages, measuring 14 by 6½ inches. The large package is said to result in savings of from 30 to 200% in spinning creeling costs. The new packages are used on the improved Whitin Hi-Pro roving frame. Present Whitin 12 by 6-inch long-draft roving frames may be modified to take advantage of these additional savings. *For further information write the editors.*



"Air-Vac" Cleaner

Scott & Williams has been named exclusive agent in the United States for the "Air Vac" industrial cleaner manufactured by C.M.I. Products Limited of London, England. The equipment is adapt-

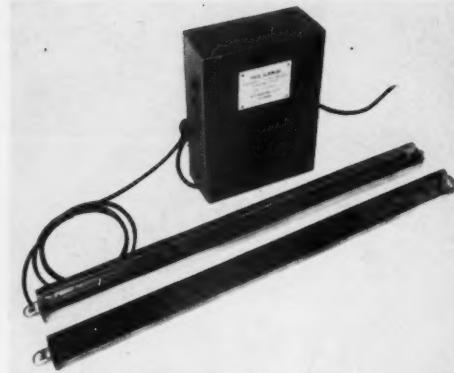
able to the textile industry as it is capable of blowing a controlled stream of air from its nozzle or creating a vacuum to draw in lint to an attached collecting bag. Lint or fly is one of the main sources of trouble in the operation of textile machines. The cleaner has no moving parts so that only simple general maintenance is required to keep it in first class operating condition. *For further information write the editors.*

Knit Machine Control

Carolina Knitting Machine Corp. has developed a new approach to speed control on its 400 needle ladies hose knitting machines. This new "Southern Slow-Down" device enables ordinary Scott and Williams, Carolina or similar model machines to enter the reciprocating stage of stocking manufacturing with a minimum of "reversal-shock." The knitting machine is reduced in a fraction of a second from approximately 200 rpm to around 60 rpm, without any radical changes in the construction of the machine. Morris Speizman, Carolina president, said trade reaction to the new device has been good. Another Speizman company, Southern Mill Equipment Corp., reports it has received orders for several hundred of its new Kwik-Trim attachments from southern mills. *For further information write the editors.*

Direct-Reading Counter

Veeder-Root has developed a direct-reading high speed mechanical counter that is said to operate continuously at 6,000 rpm. The counter features a directly-geared second wheel for reducing wear which usually results from conventional transfer-pinion methods. The manufacturer reports the counter has been exhaustively tested and found to be highly resistant to corrosion, humidity, vibration, plus substantial life and low torque. *For further information write the editors.*



Lindly Static Eliminator

Improved Static Eliminator

Lindly & Co. is making available a textile static eliminator which is said to have a high degree of proven efficiency. The new static eliminator achieves higher efficiency through two basic design changes. One is the shape of the electrode shield. The usual tubular shields limit the proximity of yarn and electrode head, Lindly points out, to a distance greater than the radius of the tube. The new square shape utilized in the Lindly unit permits the yarn sheet to come much closer to the electrode head without risk of damage to the yarn.

The second change in the design of the Lindly unit is the construction of the shield. The top surface is one continuous slot which extends the full length of the shield. The bottom, opposing surface, is perforated. This "through" construction permits ionization to create an upward draft which increases the ion dispersion rate. It minimizes the collection of dirt within the shield which causes invisible "tracking", and also minimizes the collection of solvents on electrode heads which might cause toxic gases when the current is on.

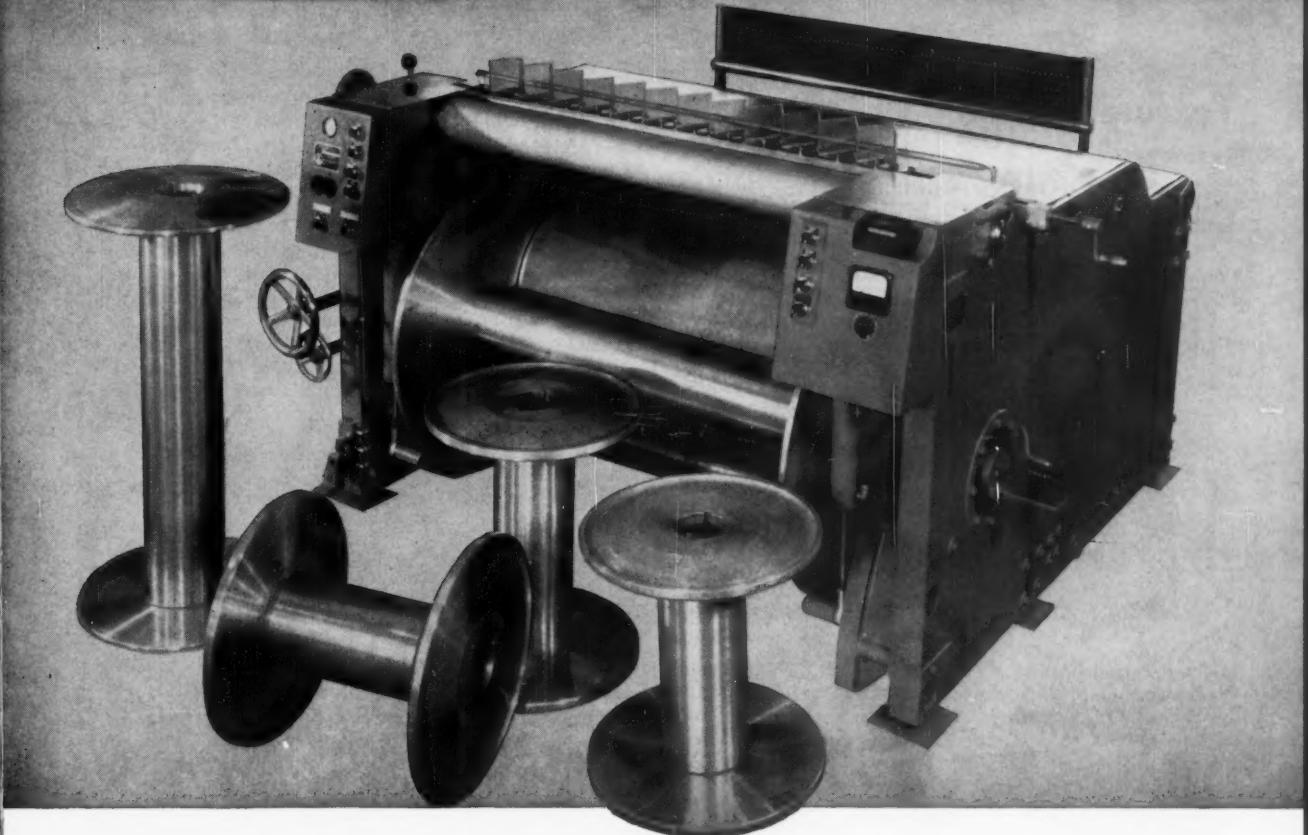
The slot, by extending the full length of electrode bar and heads, eliminates the dead metal usually found in a shield. It creates a continuous bar of ionized air that insures all yarn ends get equal relief. The "through" construction design allows this unit to be assembled with either the slot or the perforations directly under the yarn sheet.



Veeder-Root Counter



CORRECTED READING



Use any of these beams on this Versatile Warper

The versatile Kidde-Sipp Warper Model 149B is built to take a 50" beam, up to 32" in diameter—BUT it can quickly be converted to take a 42" beam, or even two 25's or two 21's.

If you don't need this flexibility, of course, you can get Model 149A. This warper can be furnished to accommodate either a 50" or a 42" beam.

Both models are dependable and sturdy, as are all Kidde-Sipp warpers.

Here are some other features of Kidde-Sipp Model 149 Warpers:

- Speed range is 8 to 1 (75 to 600 YPM).
- Electric brakes have independent rheostats for synchronized stops.
- Pressure roller and diversion roller are synchronized by a timing belt.

- You can choose either a fan reed or a positive expansion reed.
- Hydraulic action makes beam doffing work a girl can do single-handed.
- Beam tape attachment helps keep ends set in position.
- You get predetermined revolution and yardage counters.

The Model 149 is part of a line of dependable Kidde-Sipp Warpers. We'll be happy to supply you with detailed folders, which describe every warper we have. Write to Kidde Textile Machinery Corp., Bloomfield, N. J. Or phone Mr. Ruddick at Pilgrim 8-8100 in Bloomfield.



TRICOT AND RASCHEL MACHINES • TRICOT WARPERS • HORIZONTAL WARPERS • BEAMERS
CREELS • SLASHERS • WINDER-REDRAWS • TENSOMETERS • TENSION COMPENSATORS

Kidde

TEXTILE MACHINERY CORPORATION — BLOOMFIELD, NEW JERSEY

The word KIDDE is the trademark of Walter Kidde & Company, Inc., and its affiliated companies.

Textured Nylon

(Continued from Page 54)

STRETCH YARNS (MODIFIED TYPES)

Saaba

"Saaba" textured yarn is the product of an additional operation wherein a "Superloft" or "Fluflon" false-twist type stretch yarn is modified under controlled conditions of tension, temperature, and heating time to remove some of the stretch yet retain maximum bulk (if desired.) The Saaba process is carried out using the Number 511 Thermal Attachment (manufactured by Universal Winding Co. designed

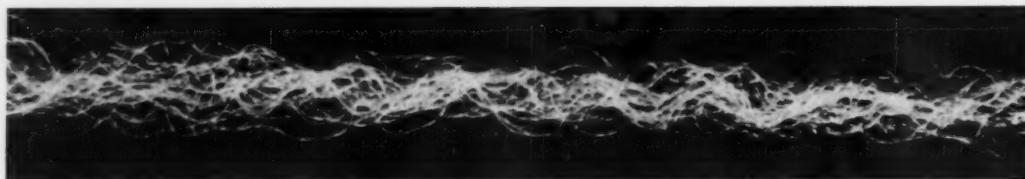


Figure 18—Photomicrograph showing a typical Saaba textured yarn of Chemstrand nylon.

for application to the Leesona Model 10 Ring Twister. Processing conditions can be varied to remove any desired amount of stretch. Fabric surface effects range from a smooth to a crepe like texture depending on the yarn processing conditions. "Saaba" is a registered trademark of Universal Winding Co. A typical "Saaba" textured yarn of nylon is shown in Figure 18.

Some end uses for "Saaba" are: knitted outerwear; swim wear; underwear; hosiery and girdles; warp knit fabrics; flat-woven and pile fabrics; industrial fabrics, webbings & braids.

Helanca SS

"Helanca" SS (Smooth Sweater) yarn is the product of an additional operation wherein a false-twist or conventional stretch type textured yarn is modified to reduce stretch yet retain maximum bulk. Fabrics knitted or woven from "Helanca" SS have a smooth, even, surface texture.

Some end uses for "Helanca" SS are: sweaters; dresses; underwear; a wide variety of other woven and knitted items.

Helanca SW

"Helanca" SW (Sweater) yarn is used to identify a conventional or false-twist "Helanca" yarn which has been modified to give a low degree of stretch and a crepe or boucle type surface character when knit. End uses for "Helanca" SW yarn are the same as those for "Helanca" SS.

Check Points for Producing Textured Yarns

Inspect yarn contact surfaces frequently: replace those which are worn or rough.

Handle bobbins so as not to touch the yarn during the unwrapping and positioning operations: this not only prevents finger or perspiration stains but also insures against disturbing the yarn lay.

Maintain constant heat-setting temperatures from unit to unit where heat-setting is used. This helps insure textured yarn of uniform quality from package to package: it also minimizes variations in dye level and the ultimate development of streaks in fabrics.

For False-Twist Machines

Maintain adequate pre-tensioning to insure uniform feeding of the yarn to the spindle unit. Loss of pre-tension can be caused, for example, by improper threading of the disc tension and dirt between discs.

Insure correct threading of spindle wheel. The wheel should be threaded clockwise for producing "S" twist and counter-clockwise for producing "Z" twist. If the nylon spindle wheel is threaded in the wrong

direction the centrifugal force imparted on the threadline at high spindle r.p.m. causes the wraps to cross each other. This results in an abrasive action which tends to break filaments, increase take up tension, and produce non-uniform textured yarn.

Check spindle speeds regularly with a stroboscope. A stroboscope check often points up irregularities such as improperly threaded exit wheels, unequal yarn tensions, or slipping spindles.

Position bobbin pig-tail guide directly over bobbin.

Adjust threadline guides to insure correct approach to, through, and from the heat-setting units.

Check spindles periodically for excessive heat and vibration.

Chemstrand Nylon for Textured Yarns

An increasing poundage of Chemstrand nylon is being supplied to throwsters, yarn processors, weavers, and knitters for texturing purposes. The basic properties of Chemstrand Nylon which make it suitable for texturing include:

1. It is thermoplastic, has a high melting point, and can be heat set.

2. It has a proper fiber "memory", or ability to revert to a set-in state after subsequent distortion.

3. It has a comparatively low moisture regain i.e., 4.5%—a feature which also promotes rapid drying and minimizes swelling and weakening when wet.

4. It has outstanding strength, toughness, and abrasion resistance.

5. It is produced under rigid quality control standards.

6. It is supplied in a wide range of deniers and filament sizes to suit all textile and industrial end use applications.

In addition, Chemstrand nylon is now available on new 2 pound and 4 pound warp-wind packages.



Figure 19—Photomicrograph of untextured Chemstrand nylon.

(See Page 60 for Table of Textured Yarn Trademarks)

MODERN TEXTILES MAGAZINE

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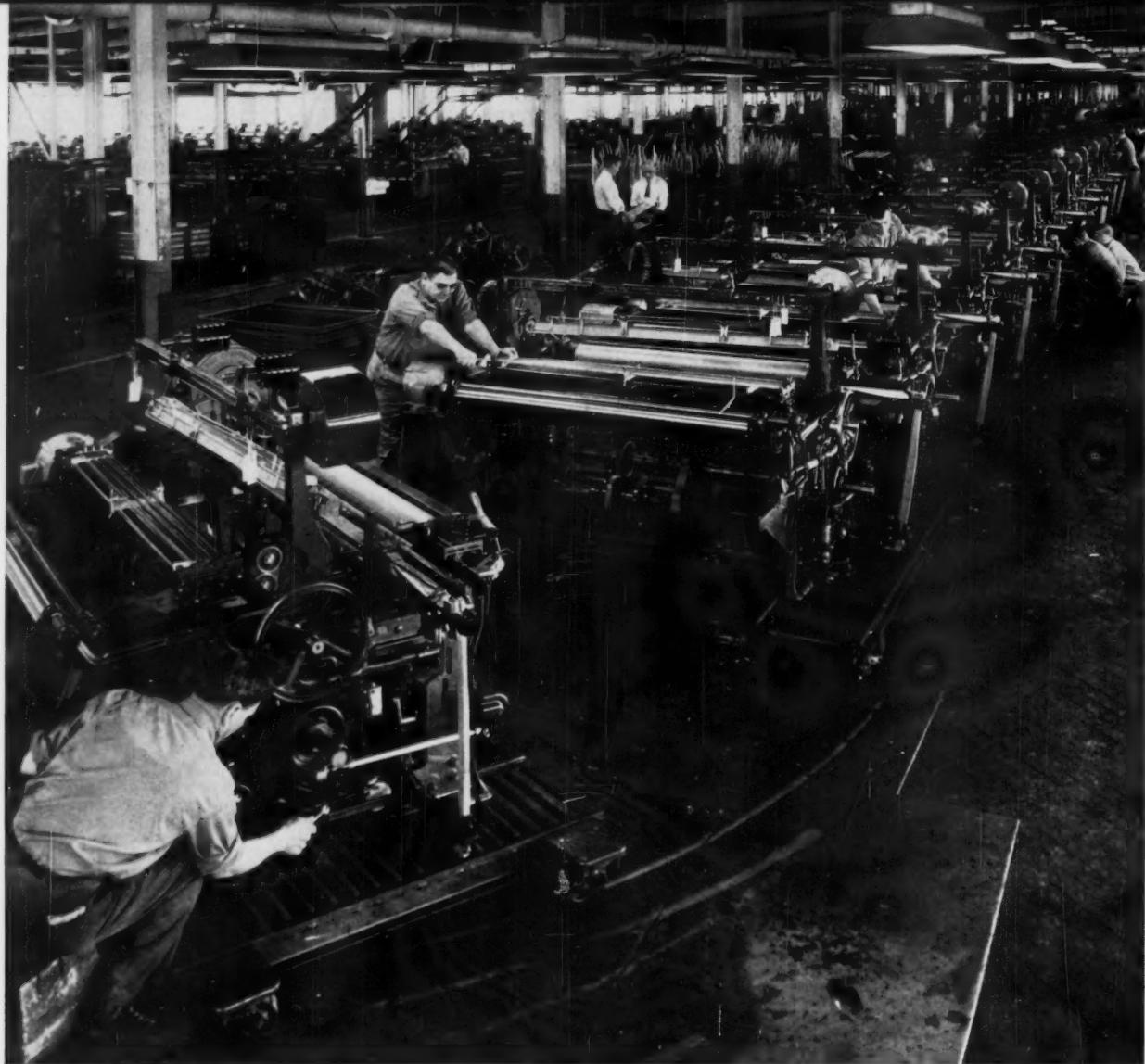
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TEXTURED YARN TRADEMARKS,

TRADEMARK	TRADEMARK OWNER	LICENSOR	EQUIPMENT
AGILON	Deering Milliken Research Corp., P. O. Box 1927, Spartanburg, S. C.	Deering Milliken Research Corp.	"Agilon" textured yarn is produced on equipment manufactured by both Hobourn Aero Components, Ltd. and Universal Winding Co.
FLUFLON	Marionette Mills, Inc., South Coatesville, Pa.	Free permission to use the trademark "Fluflon" is granted to users of the "Fluflon" process by Marionette Mills, Inc. on purchase of the Fluflon Attachment from Universal Winding Co. This attachment can be purchased in either of two ways—one bearing a royalty; the other royalty-free.	"Fluflon" textured yarn is produced using the Fluflon Attachment Model No. 994, manufactured by Universal Winding Co. This attachment can be applied to most conventional up-twisters.
HELANCA also HELANCA Hi-Test (designated HELANCA HE overseas)	Heberlein Patent Corp., 350 Fifth Avenue, New York 1, N. Y.	Heberlein Patent Corp. Note: A throwster licensee of Heberlein Patent Corp., by paying a royalty to Heberlein, can use the trademark "Helanca" to describe both conventional and false-twist textured yarns, e.g. "Fluflon" and "Superloft," providing said yarns meet quality standards set and maintained by Heberlein.	"Helanca" textured yarn may be produced using either (a) conventional up-twisters, or (b) false-twist machines, e.g. machines manufactured by Universal Winding Co., A.R.C.T., Dubini, Soxtexa, Hamel.
HELANCA NT (No-Torque)	Heberlein Patent Corp., 350 Fifth Avenue, New York 1, N. Y.	Heberlein Patent Corp.	"Helanca" NT textured yarn is produced on false-twist machines.
HELANCA SP (High Elastic Pull)	Heberlein Patent Corp., 350 Fifth Avenue, New York 1, N. Y.	Heberlein Patent Corp.	"Helanca" SP textured yarn is produced on conventional up-twisters by the twist-heatset-untwist method.
HELANCA SS (Smooth Sweater)	Heberlein Patent Corp., 350 Fifth Avenue, New York 1, N. Y.	Heberlein Patent Corp.	"Helanca" SS textured yarn is the product of an additional operation wherein a stretch-type textured yarn produced on either (a) conventional up-twisters, or (b) false-twist machines is modified on equipment manufactured for example by Universal Winding Co. or Heberlein to reduce stretch yet retain maximum bulk.

TRADEMARK OWNERS, LICENSORS AND EQUIPMENT

TRADEMARK	TRADEMARK OWNER	LICENSOR	EQUIPMENT
HELANCA SW (Sweater)	Heberlein Patent Corp., 350 Fifth Avenue, New York 1, N. Y.	Heberlein Patent Corp.	"Helanca" SW is a stretch-type textured yarn produced on either (a) conventional uptwisters or (b) false-twist machines, which has been modified to give a low degree of stretch and a boucle-type surface character either (1) by using special settings in the conventional or false-twist operation, or (2) by means of an additional operation. (This method of producing "Helanca" SW yarn gives the yarn greatest yield and least stretch.)
SAABA	Universal Winding Co., P. O. Box 1605, Providence 1, Rhode Island	Universal Winding Co. Note: Saaba process and permission to use the trademark "Saaba," is royalty-free on purchase of equipment from Universal Winding Co.	"Saaba" textured yarn is the product of an additional operation whereby "Fluflon," or "Superloft" false-twist type stretch yarn is modified using the Universal No. 511 Thermal Attachment designed for application to the Leesona Model 10 Ring-Twister manufactured by Universal Winding Co.
SPUNIZED	Spunize Co. of America, Inc., Unionville, Connecticut	Spunize Co. of America, Inc.	"Spunized" textured yarn is produced on machinery manufactured by Cocker Machine and Foundry Co., Gastonia, N. C.
SUPERLOFT	Universal Winding Co., P. O. Box 1605, Providence 1, Rhode Island	Universal Winding Co. Note: Royalty-free license is granted with purchase of No. 550 Superloft stretch yarn machine from Universal Winding Co. Numbers 551 and 552 Superloft stretch yarn machines are subject to royalty agreement.	"Superloft" textured yarn may be produced on either (a) The No. 550 Superloft machine or (b) The No. 551 Superloft machine, i.e. the No. 550 machine converted to high speed spindles, or (c) The No. 552 Superloft high speed spindle machine.
TASLAN	The Du Pont Co., Wilmington 98, Delaware	The Du Pont Co.	"Taslan" textured yarn is produced on machinery manufactured by U. S. Textile Machinery Co., Enterprise Machine and Development Corp., and Berlin Maschinenbau-A.G. Berlin, West Germany.
TEXTRALIZED and BAN-LON	Joseph Bancroft and Sons Co., Wilmington 99, Delaware	Joseph Bancroft and Sons Co.	"Textralized" and "Ban-Lon" textured yarns are produced on the Special Model 102 Foster Cone Winder equipped with Bancroft licensed crimping attachment, supplied by Foster Machine Co., Westfield, Mass.
TYCORA	Textured Yarn Co., Inc., Philadelphia, 29, Pennsylvania	Textured Yarn Co., Inc.	The trademark "Tycora" represents textured yarn produced by several techniques owned and controlled by Textured Yarn Co., Inc.



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A POLICY OF SELECTIVE MARKETING

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threefold: a new product of proven merit; a policy of selective marketing; an effective system of quality control and protection.

Creslan acrylic fiber is the product. Born of a magic molecule, it combines the warmth, vitality and dyeability of the natural, with the wear-strength, easy care wrinkle-resistance that can be built into synthetics. Creslan comes to market selectively. It is sold only through prestige spinners, weavers, knitters; merchandised through the great manufacturer brand names; promoted through America's top retail outlets.

Supporting the integrity of selective marketing is a program of quality control noteworthy for strength and workability. The Creslan trademark is authorized for use only on finished fabrics tested and approved by Cyanamid. It is not authorized for use on products such as top, yarn, or greige goods. The Creslan trademark becomes its own symbol of quality, associated with selected outlets throughout every phase of finished goods merchandising. Creslan selling policies are original, imaginative and practical. They have been developed with one thought in mind: we want you to make money. Creslan is a product of American Cyanamid Company, New York

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SEPTEMBER 1969

A PREVIEW OF PROFIT OPPORTUNITIES...

NEW MARKETS

WITH

MANMADE FIBERS

A GUIDE FOR

YARN SPINNERS
WEAVERS
KNITTERS
CONVERTERS
**DYERS AND
FINISHERS**
CUTTERS

Prepared by
Jerome Campbell
Editor, Modern Textiles Magazine

MODERN TEXTILES MAGAZINE

Present indications are that production of manmade fibers this year may achieve the two billion pound mark—a new record for U.S. producers. The spur to this soaring output is the ever-broadening variety of end uses in which manmade fibers are serving American consumers and American industry.

This unceasing forward movement of manmade fibers into new markets means new and brighter opportunities for profit for mills; for converters; for dyers; for manufacturers of garments and home furnishings; for suppliers of cloth for industrial uses.

It is the purpose of the following report to describe many of these new uses of manmade fibers that offer profit-making products for textiles and its allied industries. It is our hope that knowledge of these new developments will inspire still newer and more profitable ideas for employing manmade fibers.



AS THE IDEA of obsolescence in home furnishings gains acceptance, consumers are becoming more eager to find varied textures, designs, colors and styles in floor coverings, draperies, upholstery, and domestics. While they want fashionable home interiors, however, they also desire furniture and furnishings that are functional and able to stay new-looking in the face of daily wear.

To satisfy this challenging demand, the producers of man-made fibers and fabrics continue to search for new and improved materials and for additional places in the home where man-made fibers can serve. Many companies are also expanding their promotional programs and are supporting these efforts with quality control and guarantee programs that assure consumers the new products will fulfill the promises made for them.

IMAGINATION UNDER FOOT—
This deep-pile rug of Acrilan produced by Cabin Crafts shows how manmade fibers are bringing color and fresh styling to floor coverings.

MANMADE
FIBERS
IN

HOME FURNISHINGS

Carpets are perhaps the most exciting and fast-changing of home furnishings merchandise. Here, where wool reigned supreme until a few years ago, there are fabrics of nylon, rayon, Tycora, Acrilan, Saran, Verel, Creslan, acetate, containing one fiber alone or blends of different fibers. Sometimes, too, carpets are made of blends of different forms of one fiber, as, for example, 22 denier nylon blended with 15 denier nylon.

A new arrival on the carpet scene in recent months is a new solution-dyed yarn called "Saranspun", for its high percentage of Saran, made by National Plastic. It is used by Suwanee Carpets in its Mark VII, an economy-priced (\$6.95 a square yard), looped-pile broadloom, with a luxurious look and a strong coated backing that binds each tuft securely and adds durability and resilience. Mark VII carpet is available in a variety of lasting colors, and is said to have the following merits imparted by its Saran contact: resists stains and is easy to clean, is resilient, resists moths and mildew, is durable, and, significantly, is nonflammable.

From its first stages nylon carpeting has offered long wear life. In the past two years there have been newer, more resilient forms of nylon created for carpet yarn. This movement for better nylon carpet is continuing. Several companies, for instance, have developed continuous filament nylon carpet yarn, and in so doing have gained these advantages as well as added stamina: non-pilling, excellent resiliency and covering power, easy cleanability, elimination of fiber migration (which occurred in carpets of spun nylon because of the fiber's weight), increased bulk, and soft hand.

Allied Chemical's nylon filament yarn for carpets, called Textured Caprolan, showed up so well in limited market tests conducted in the fall of 1958, that the company has proceeded in 1959 with full-scale trade and consumer promotion. The test line, made of yarns textured by Leon Ferenbach Inc., was Croft's "Resort Collection."

This year Croft has added three more lines—"Tripoli" at \$9.95, "Gold Coast" at \$14.75 and "Fantasy," a custom carpet, at \$17.95.

According to Croft vice president, Nolan Helms, in a statement made early in 1959, tufted carpets in the \$10 and up price range have made up about 10% of the total market and will attract 10 to 20% more of the market each coming year. Helms especially praised Caprolan's ability to absorb color.

Other nylon filament yarns for carpets are Du Pont's 501 carpet nylon which was introduced by James Lees and E. T. Barwick, and Agilon, developed by Deering Milliken Research Corp. and Karastan Rug Mills. Du Pont stresses the broader styling possibilities of its yarn, particularly in woven loop pile constructions.

Two companies, Allied and Du Pont, have quality control labeling programs that assure the customer she is getting first grade carpet manufactured to meet

minimum performance standards. Under Allied's program, the carpet manufacturer submits samples in the complete color line to Allied, first for fiber content analysis and then for testing by an independent agency such as National Carpet Inspection Service of Chicago.

A Certification for Performance Label is given to the product that meets these requirements: rapid disappearance of furniture marks; ease of stain removal; texture retention after heavy traffic, and commercial cleaning; color fastness and stability. Allied also insists that carpet be scrim-backed to avoid stretching and rippling.

Du Pont's labeling program applies to all carpet made of 100% Du Pont nylon and guarantees that only first grade yarn has been used. Under the year-old program, mills voluntarily agreed to meet certain quality standards in order to put the 100% Du Pont nylon tag on their merchandise. New agreements, signed June 15th, further require that double backing be used on tufted carpets of 30 ounces per square yard of nylon in the pile. Backing material may be jute, foam, cotton, kraft, nylon or any material mills deem best for a particular nylon carpet style.

New Carpet Nylon

Extended uses of nylon have also resulted from Industrial Rayon's development of 22 denier nylon carpet staple, which is said to offer manufacturing economies and to be particularly advantageous when blended with other fibers, notably wool, in increasing wear life, twist and texture retention, crush-resistance and firmness of hand. Available in bright and dull lusters in 3, 4½ and 7½ inch lengths, one of the blends in which it is being used is a 30/70 nylon-wool combination, the nylon being 15% 22 denier and 15% 15 denier. When such 30/70 nylon-wool Travis Twist and Imperial fabrics by Hardwick and Magee were promoted in a three-store, one-week selling campaign in Philadelphia last spring, an overwhelmingly favorable consumer response came forth. The blend also appears in Gulistan's Brookpark G-22 carpet.

Entering consumer magazine advertising for the first time, The Nylon Division of Industrial Rayon is running a two-page, four-color ad in the current issue of House Beautiful which features six fabrics with 22 denier nylon staple made by Bigelow-Sanford, Artloom, Aldon, Magee, Hardwick and Magee and Gulistan. The ad carries actual swatches and invites inquiries for samples. Other carpets containing the heavier denier nylon are coming from Cottonwood Mills, Karagheusian, Pride, and Adamo. Adamo's "Spice Island" is the first all-nylon carpet to contain 22 denier nylon; it is blended with 75% Industrial Rayon 15 denier carpet nylon.



DOUBLE PURPOSE CHAIR—Textured Caprolan, Allied Chemical's nylon, is the fiber used in the long-wearing cover for this new chair which serves both as a chair and chaise lounge.

Since the beginning of the year Acrilan carpet activity has progressed at a constant rate. In January Chemstrand revealed that more than 30% of the total fibers used in carpets and rugs selling from \$10.95 a square yard and up contain its acrylic fiber. Chemstrand also announced 19 new Acrilan lines by six carpet manufacturers to make a total of 14 companies with 57 carpet lines and 10 special design area rugs operating under Chemstrand's Acrilan trademark program.

American Cyanamid's Creslan, acrylic fiber is making its debut in the carpet field as well as other home furnishings and apparel. It is used in a new line of "Pouff" pile throw rugs by Princeton Mills. Princeton says that Creslan has the advantages of easy dyeability in a range of colors; depth of penetration and resultant fastness of colors; dimensional stability in machine washing of "Pouff" rugs, and resilience of the fiber. American Cyanamid reports preparation of marketing efforts for coming seasons in anticipation of delivery of carpet fiber from the firm's new acrylic fiber plant near Pensacola, Florida, where production began this year.

More mills are giving attention to Verel, Eastman's modified acrylic fiber. Aldon Rug Mills introduced a blend of 70% Verel with 30% wool, in January, in two high-styled self-patterned carpets, one a textured loop pile, the other a textured random shear with scroll pattern. Aldon found these so successful that it introduced another line in June, also a 70/30 blend of Verel with wool, in a random shear, self-patterned carpet. Coronet Carpets has a 100% Verel carpet designed with an unusual "wavy" effect. It features interesting colors in tone-on-tone effects and solid shades and has a scrim backing which is guaranteed against buckling, and stretching. At Roxbury Carpet, texture is featured in a craggy look in carpeting made of 70% Verel and 30% wool. Verel is also being used extensively in varying blends with other man-made fibers at Callaway, Cabin Crafts, Bigelow, James Lees, Mohasco Industries and Karagheusian.

In rayon carpeting, a field where quality control dates back a number of years with the Avisco Integrity Tag, there has been added stringency in quality control. American Viscose announced, last spring,

a tightening of its trademark requirement program, particularly with regard to Super L, its smooth carpet rayon. The company now permits the name Super L to be carried on the finished article only and confines it to 100% smooth rayon constructions or blends with wool, nylon or acrylics. These specifications also apply to broadloom carpeting qualifying for the Avisco Integrity Tag. The Integrity Tag for scatter rugs remains unchanged since different wear requirements apply.

American Viscose found that Super L did not perform in machine tests as well as it did in actual use. Hence it uses wear-tested carpet samples to show the outstanding durability of the smooth rayon carpet and has a display unit for stores that shows an animated figure with "running feet" on Super L carpeting to stress superior wearability.

New Drapery Fabrics

As in carpets, so too in draperies, the new Saran-spun has made an appearance and shows considerable promise. In drapery fabrics, the 80% Saran, 20% acetate yarn is said to give the same benefits of easy care, beauty and durability already noted for carpets—plus others. Saran-spun drapery fabrics are soft and flexible, drape, fold or pleat readily; have good dimensional stability and stay the same through weather changes and humidity; are resistant to dry cleaning agents, detergents, bleaches, salt water and moisture. In addition, color continuity of the solution-dyed fiber makes these drapery fabrics propitious for wide-width installations.

Strawn is another brand new yarn. It is a flat, straw-like monofilament rayon yarn especially suited for making drapery and upholstery fabrics. Industrial Rayon, the developer, calls attention to its unusual cross section and distinctive luster, and the various new styling possibilities opened up by these features. It also says Strawn combines well with wool, cotton and other man-made fibers; has an outstanding ease and uniformity of dyeing, and can be piece-dyed or yarn-dyed with equally good results. Cross dyeing with other yarns is also reported to have created exciting colors.

The fiber is available in 450 and 1250 deniers, in bright and dull lusters, on cones, spools, and skeins. Strawn draperies are being made by Harmony Textiles and casement fabric by Louisville Textiles.

Originally introduced last fall and now being produced in greater quantities and more lines is sparkle chenille fabric by Decorative Fabrics, Inc. which has a flocked pattern derived from Metalflake, Dobeck-mun's metallic foil sparkle. The Metalflake is .0008 inches thick, has a 1/62-inch round shape and is applied in colors (gold, silver, blue, red, green, or fuchsia, as well as multicolor combinations). It gives the fabric an iridescent quality. The sparkle is described as non-abrasive, non-tarnishing, non-oily, easily cleaned by standard methods, and its colors do not run. Decorative Fabrics has up to 1500 different flocked patterns in a variety of styles in 48-inch broadcloths and polished cottons, nylon sheers, taffetas, crystals, and other synthetics.

The drapery with truly permanent color is the achievement Courtaulds believes it is reaching with success. Its solution-dyed fiber, Coloray, was subjected to severe tests in the tropical sun of Janiaica Nassau and Bermuda for a three-month period and came through unspoiled. The tests, according to Courtaulds, show retailers that Coloray draperies can be exposed to almost unlimited sunlight, and that the same drapery fabrics can be purchased at different seasons for years and still be perfect colormates.

Color is also the new development this year in Fiberglas drapery and curtain fabrics. With its Coro-dyeing, Owens-Corning Fiberglas now applies color to the glass yarn: previously color could be applied to Fiberglas fabrics only after weaving. Yarn dyeing of Fiberglas permits new designs and color effects, like plaid, checks and tweeds, which are not attainable in standard piece-dyeing or printing on this type of fabric.

Riverdale Drapery Fabrics was the first converter to offer a collection of Coro-dyed Fiberglas fabrics; introduced them to the consumer this fall and featured them in its House of Fiberglas display at its New York City showroom. The Riverdale draperies are made of Aerocor yarn, the Fiberglas that is bulked or textured by blowing a jet of air through filament yarn.

There's been activity in other phases of Fiberglas manufacturing, too. In ready-mades, flocked fabrics—the flocking being of Dynel which maintains the fire-safety property of the fabric—has become increasingly popular. A fabric combining Fiberglas yarn with metallic filaments is being made by Titus Blatter, and Robertson Factors advertise "first with milium metal-insulated Fiberglas draperies."

Eastman's Chromspun acetate has been receiving new style and design treatments in drapery fabrics made of the fiber alone or in combination with cotton and with rayon. Prints, stripes, exotic Far Eastern and Hawaiian motifs, and realistic scenes are some of the pattern treatments given to these fabrics with the intention of giving elegance to the average consumer. Eastman's Estron acetate is similarly receiving interesting new designs.

An innovation by Fuller Fabrics this year is a combination of draperies with matching wall accessories. The drapery fabric combines Chromspun acetate and rayon and has a subtle overprint which is repeated as the border of a scroll on which the consumer has a choice of a scenic, abstract or figure motif. The scrolls have walnut-finished rollers and are designed with two hanging mechanisms.

Du Pont has announced a number of newcomers to the consumer market this fall among the wide variety of drapery fabrics containing its fibers. Its two newest fibers, Ondule rayon and Acele acetate, are combined in Riverdale's Kismet collection of Persian-inspired drapery fabrics which have a soft hand and a random slub. The first drapery fabrics made with heavy-denier Ondule random slubbed rayon yarn are on the market. "Tissue poplin" is a new fabric of 100% Du Pont Dacron polyester fiber with a crisp, semi-sheer look which is shown in casement fabrics. A flame retardant drapery fabric is being sold which is made with warp of Dacron and filling of saran and Du Pont nylon. A Dacron and linen drapery fabric is 100 inches wide, making possible ceiling-to-floor and wall-to-wall installations without seaming.

Fresh Styles in Upholstery

New upholstery fabrics are also adding interest and serviceability to furnishings for the modern home. Chemstrand's Acrilan acrylic fiber is used in upholstery for the first time in a Holyoke Fabrics product. A special advantage noted for Acrilan as an upholstery fabric is its light fastness. Where the upholstery trade generally requires 40 hours of light fastness, fabrics of Acrilan can offer a minimum of 60 hours light fastness, with most colors ranging between 80 and 100 hours, according to Chemstrand. The company further says Acrilan imparts the necessary durability when a large area of the visible surface of a fabric is subject to maximum wear conditions.

To assure quality in upholstery fabrics made of Acrilan, Chemstrand has set up a special control program. The standards required are: Face yarns of the fabrics must be of 100% Acrilan, whether they be warp or filling yarns. For other than face yarns, other fibers may be blended with Acrilan, provided the acrylic is not less than 60% by weight. Furthermore, the total weight of any fabric must be no less than 14 ounces per linear yard (36" x 54"). There are also minimum standards for abrasion tests, sewing strength, seam slippage and color fastness.

An increased emphasis on durability in upholstery fabrics is one reason for greater use of nylon. Appearing in upholstery fabrics for the first time is textured Caprolan of Allied Chemical. The nylon filament yarns, which have been texturized by the Agilon process of Deering Milliken Research Corp., appear in two Jacquard-woven qualities by Collins & Aikman—"Gate" and "Chain." According to an Allied spokesman, this is an ideal upholstery fabric for the family with children and the family that entertains frequently—in short, wherever furniture is subject to constant wear.

Following last year's Trilogy, Greef offers Trilogy II, a new trio of fabrics with face of 100% Du Pont spun nylon. The line includes a twill weave, a quatrefoil pattern in a needlework weave, and a tweedy pinstripe, all three in 10 related colorways. Stronheim and Romann also have three new fabrics with face of 100% Du Pont nylon—a damask, stripe with contemporary feeling, and a scroll pattern in two shades of beige. In addition, Du Pont reports that upholstery fabrics of its nylon are being made in bright plaids.

Filament nylon yarns are used in nine furniture fabrics in an expanded Candalon upholstery collection. New weaves and textures in pile fabrics of textured nylon, combinations of spun and filament nylon, Tycora, and Estron, are included, plus a new flat fabric of 100% nylon with a strie effect that is achieved through the combination of several yarns. Designated "Yale," the flat weave fabric has the feel of a tough sturdy cloth and a lustrous finish.

The use of Chromspun in upholstery fabrics has been increasing steadily during the past year, and it is making its appearance in many well-known upholstered furniture lines such as Kroehler, Futurian-Stratford and Karpen.

Plastic upholstery fabrics are reported to have reached a new peak in sales. In many instances these plastics incorporate metallic yarn in their constructions, including both staple lengths and in the form of Wink, Metlon's chopped-up, confetti-like product.

What's underneath the new upholstery fabrics? Two new filling fibers are being used: Celanese's acetate Celacloud and Du Pont's Dacron polyester fiberfill. Celacloud made its first success in mattresses; now its resiliency, moisture and mildew resistance, and its dust-free, non-allergenic properties are applied in furniture fill. It can be used as a quilted batt for wrapping around foam or spring units or in plain battings for fill in seat and loose-back cushions.

Dacron fiberfill was introduced last year in traditional furniture. This year finds it way into modern furniture to add softness without compromising trim, modern lines. Knoll, for instance, uses the Dacron fiberfill over a foam rubber core in a classic sofa and in modern pieces, recommending the built-in resiliency and easy care of these cushions which stay neat looking.

Fabric Wall Coverings

Looking to other areas of home furnishings, we find continued evidence of the growing usefulness of manmade fibers and fabrics.

Wall coverings of Dow Chemical's Rovana are woven from the fiber and embossed for decorative effects. The vinylidene chloride copolymer monofilament yarn, which was formerly designated Q-957, is a narrow ribbon of light film in continuous form. It is available in 300, 400 and 550 deniers and 10 colors, including a natural color. Dow is now marketing Rovana in small quantities but expects increasing household and industrial uses to come forth.

Metallic yarns are being used more with plastics in wall coverings; table tops and wall dividers.

The first awnings made of vinyl-coated Dacron are now available through canvas-awning manufacturers. They may be customized for individual homes and are made for windows, patios, canopies, and carports. Values cited for these awnings are: they're easy to install and light in weight; color is pigmented as an integral part of the awning's Koroseal vinyl coating, hence colors are lasting; they have high tear strength; permit little stretch or shrinkage under continued exposure to sun and rain; are water repellent, and they're translucent, allowing sunlight to penetrate but keeping out glare.

New in window shades are those made of Fiberglas-reinforced vinyl. They are said to be highly resistant to dirt and stain and fire resistant.

Outdoor Furniture Fabrics

In outdoor furniture, Saran continues to be a prominent material. It is used by Durham Manufacturing in new "Casualaire" chairs which are smartly-styled of woven Saran and have contemporary shapes. They are promoted for indoor use as well as outdoor. The fabrics have a tufted appearance and interweaving of metallic yarn gives it a hand-woven effect. Two styles are available, one with a wire back, the other having a cushioned back, both with tubular steel frames finished in black or gold and weighing less than nine pounds. The smoothness and toughness of Saran fibers and their low moisture absorption contribute these conveniences: stain resistance; immunity to moths; mildew and fungi; long wear life.

Saran is also an important fiber now in original automotive upholstery fabrics in which it is used in



ANSWER TO HOMEOWNER'S PRAYER—Sold in retail stores, saran webbing packs enable homeowners to make repairs to their outdoor furniture. Webbing comes in many colors.

combination with other fibers. Production for this use has been increasing and promises to grow even more.

Two newcomers to outdoor furniture and automobile seat covers are expected in volume production this fall. They are polypropylene yarns developed by Reeves Brothers and Hercules Powder. Both companies stress the economies of this very lightweight plastic because of the greater yield per pound it delivers over competitive materials. According to Reeves, yield per pound is about 20% higher than for nylon and 70% higher than for Saran.

Reevon is the Reeves development for outdoor use of polyolefin yarn. In flat weaves, it is being marketed by several webbing manufacturers for deck chairs, garden furniture, shade cloth, beach umbrellas, and awnings. According to the manufacturer, Reevon yarns have these properties: they are ultraviolet stabilized, colorfast, nonabsorbent, chemically inert, mildew resistant and odorless; have high abrasion resistance and good tenacity.

Hercules refers to its new fiber as Pro-fax polypropylene. The company says that its new polypropylene resin, having proved itself in rope because of its light weight and strength, will withstand prolonged outdoor exposures and hard usage better than materials currently used in outdoor furniture and auto seat covers.

Strawn, the new flat, strawlike monofilament rayon yarn of Industrial Rayon (described above as a drapery fabric) is being introduced in automobile upholstery.

Fiberglas shower curtains are now in volume production. F. H. Jaffe Manufacturing Co. is the curtain manufacturer, Qual-Fab, Inc. is the converter of the fabric which has a tight weave especially developed for this end use. These are also the first Fiberglas shower curtains to be made without a center seam. Water repellent, hence requiring no inside liner, the shower curtains offer all the easy-care advantages and wear life of Fiberglas.

New Ideas in Domestics

Turning to domestics, a chenille bedspread with tufts of Du Pont nylon, the resiliency of which prevents the tufts from matting after frequent washings, is made by Carolyn Chenilles. It is lighter in weight than traditional chenille spreads, can be machine laundered, and seldom requires ironing. Made in twin and full sizes, it comes in pastels and deep shades, sometimes with a fine stripe of gold metallic threads.

Interesting texture variety is being achieved with bedspreads made of Avicron. Shown at the June Home Furnishings market were spreads with thick tufts of lint-free Avicron in unusual constructions such as two-way curl effects. American Viscose, producers of this continuous filament rayon yarn, recommend Avicron for articles that must be frequently laundered because the fiber reactivates its crimp when wetted.

Eastman Chromspun acetate is used for the first

time in bedroom ensembles in Ardsley's Radiance line. Another new bedroom ensemble is Charles Bloom's Diamond Puff, made of Eastman Chromspun acetate and rayon which simulates quilting.

Chromspun is also making strides in the accessories segment of the home furnishings field. Highlighted this fall are 100% Chromspun table mats designed by Alice Marquart. The lofted yarn gives the mats a textured hand and appearance.

Verel comforters with a luxurious touch are featured by American Needlecrafts which gives the deep pile comforters an antique stain border and a special non-skid backing.

Chemstrand has a new special tagging program for electric blankets made with its Acrilan acrylic fiber. Special tags are being issued by the company for use on electric blanket fabrics certified by the manufacturers as meeting the 50% minimum virgin Acrilan fiber content. The program has been instituted, the company said, in order to provide for consumer's positive identification of electric blankets containing a minimum of 50% Acrilan which imparts satisfactory shrink resistance, shape retention, moth and mildew resistance.

MANMADE FIBERS IN

INDUSTRY

THE MYRIAD USES industry makes of fibers, yarns and fabrics is a wide open, virtually inexhaustible market for the manmade fibers. This does not mean, however, that it is an easy market for manmade fibers to penetrate. Actually, the broad field of industrial uses is not one but many disparate markets for the properties offered by manmade fibers. To succeed in these end uses, manmade fibers must perform some useful function better or at lower cost than natural fibers, or do both.

To an extent that increases significantly each year, manmade fibers are doing just that; compared with natural fibers, sometimes the initial cost may be higher, but the wear life of the manmade fibers is so much longer that the net result is a lower cost for the industrial user.

Initially, industry adopted manmade fibers to replace natural fibers—nylon over cotton, for example. The manmade fiber properties of high strength, light weight, abrasion resistance and resistance to chemical attack have enabled these fibers to find growing use in such fields, formerly reserved for cotton, as hose, belting, cordage, tire cord, coated fabrics, filtration, sewing thread, electronic end uses and many others.

But currently newer achievements are opening for the manmade fibers in industry. Entirely new textile structures are being engineered to enable textile products to replace minerals and metals in specific industrial applications. For example, Du Pont's Teflon TFE fluorocarbon fiber had its initial use replacing asbestos, a mineral fiber, as braided packing for

pumps and valves. Now Teflon is finding employment in both automotive and non-automotive bearings—replacing metal, not another fabric.

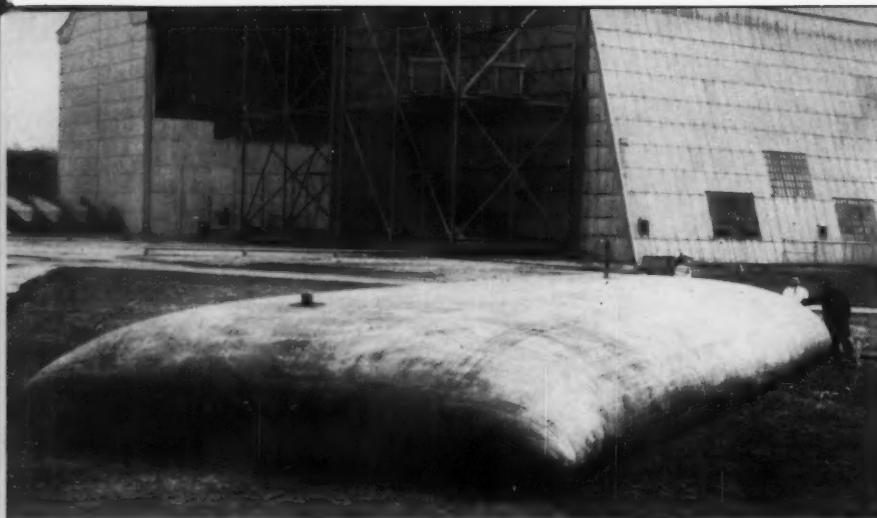
A new series of spherical and rod end bearings and bushings using Teflon TFE fluorocarbon fiber have been developed by Radial Bearing Corp. to operate without lubrication and to sell at a price close to their all-metal counterparts.

In recent tests, six 1958 model taxicabs with new type balljoint suspension bearings and steering linkage bearings, have run 50,000 miles with no chassis lubrication necessary. Other cabs in the test fleet, with conventional bearings, had to be greased 36 times during the same period. Projected uses of Teflon include its application in the fields of aircraft, construction equipment, oil field drillings, food processing, agriculture, and textile machinery.

Houses of Air and Nylon

Another example of a manmade fiber product replacing metal is in air-supported structures whose use is increasing rapidly not only for storage but for a variety of shelter purposes, including shelter for humans. In these structures nylon replaces steel and aluminum not another fabric or fiber.

Recently Birdair Co. manufactured a balloon canopy 110 feet long, 20 feet high and 40 feet wide to cover the swimming pool of the Empress Motel in Atlantic



NYLON PILLOW—Not found in domestics departments this "pillow" of rubber-covered nylon is a new efficient way to store fuel and other liquids. It has a 50,000 gallon capacity.

City. The "balloon enclosure" supported by constantly maintained air pressure, makes the pool an all-weather one. Ends of the canopy are blue nylon with vinyl coating and the body of the balloon is of clear-see-through Du Pont Mylar polyester film. A 4,000-square foot ice area just outside the pool covering provides an interesting contrast at the motel—the sight of guests swimming or ice skating within full view of each other.

Manmade fibers are being employed in a number of other uses around swimming pools—such as the covers being marketed by Reeves Brothers. The firm first commercially offered its Pooltex cover, made from Reevon polyethylene monofilament, in 1958. Reeves has licensed several fabricators to make Pooltex covers.

Improvements in coated nylon fabrics have made them more in demand for marine and heavy duty tarpaulin uses. United States Rubber has incorporated new coating formulations in its Fiberthin line of coated fabrics.

The marine grade, made in 11-ounce and 18-ounce weights, is recommended for use by U. S. Rubber as boat covers, curtains, canopies, swimming pool covers, hatch tents, and hatch covers. The commercial grade is flameproofed to meet military and local municipal requirements, and is recommended for heavy-duty applications. U. S. Rubber does not make the various finished products but supplies the Fiberthin fabrics to distributors and fabricators.

"FRF," Owens-Corning's fiberglass reinforced polyethylene film, is finding wider application as a protective cover. All the qualities of polyethylene film—an efficient moisture and dust barrier, and quick heat sealing—are retained in Owens-Corning's improved product. Its more common uses are: temporary silos, haystack covers, packaging for foods and chemicals, outdoor warehousing, and machinery protection. For home use, the film is strong enough to act as a swimming pool cover.

The firm's Fiberglas also is being used in all-purpose electrical insulating tapes which resist moisture, rot, chemicals, high temperatures, and will not burn. Brochures describing such tapes and their applications have been issued by Atlas Asbestos Co. and the Horace Linton Division of Hess, Goldsmith & Co., Inc. The brochures may be obtained by writing the editors.

Sleeving and braid, manufactured from Fiberfrax yarn, also is available for high temperature electrical work. Industrial applications of Fiberfrax cloth include insulation in the honeycomb brazing of stainless steel used in supersonic aircraft, and as furnace curtains and gasketing.

Longer Lasting Hose

Fire hose with filler cords of Dacron polyester fiber continues to gain wide acceptance for both industrial and municipal fire protection since its introduction for this purpose five years ago. Seventy-five per cent of American cities of over 10,000 population now use some amount of Dacron and cotton fire hose. Advantages cited by DuPont for Dacron hose include high burst strength, reduced weight, quicker drying time, greater flexibility, and improved ease of handling.

"Imperial" hose, made with an all-Dacron jacket, has been introduced by B. F. Goodrich Industrial Products. Originally designed for heavy duty service in oil refineries and chemical plants, the company is now recommending the hose for fire service, in the contracting and mining industry, in general industrial plants, and even on board ship for washdown service. The Goodrich single jacket hose is reported able to withstand surge pressures far beyond its initial 500-pounds per square inch pressure test.

High tenacity rayon yarns with intermediate shrinkage and elongation characteristics, considered especially suited for use in the manufacture of medium and low pressure hose, have been developed by Industrial Rayon Corp. The yarns are being used in hose for domestic appliances and in a broad range of industrial products, including automotive hose. A full line of adhesive-treated high tenacity yarns, which eliminate the need for further adhesive treatment by the customer, also have been developed by Industrial Rayon.

Many authoritative quarters believe that natural fibers used in cordage in the marine field will virtually be replaced by manmade fibers during the next five years. Rope and cordage of synthetic fibers are finding ever wider uses in industry. The biggest end-use for cordage in the marine field is for mooring lines, which take about 12 million pounds of rope a year.

Better Marine Ropes

DuPont, together with leading cordage companies, initiated cost-performance field tests of nylon mooring lines which reportedly showed that the nylon lines were superior to manila ones in performance, durability and economy. DuPont has developed a new cordage yarn, Type 707 nylon, with rope made from this new product promising still greater rope performance benefits. Type 707 yarn ropes are said to average 14% higher breaking strength than regular nylon ropes.

Many industrial concerns are using synthetic cordage more and more, not only for ordinary applications but to solve special ones. Carrier Corp. of Syracuse, N. Y., has switched to nylon and Dacron slings and webbing to transport heavy compressor shafts and wheels along the production line. The coolant used in machining operations so deteriorated the manila slings previously used that such slings only lasted about 12 days. A number of manmade fiber slings have served for eight months on the same job.

Nylon yarns derived from Caprolactam, including Allied Chemical's Caprolan nylon, have been approved by the Navy Bureau of Ships for use in any nylon ropes purchased by the Government.

Traditional rope fenders for ships are finding a stiff competitor in a new pneumatic ship fender produced by Goodyear Tire & Rubber Co. Shaped like oversized watermelons, the Goodyear fenders are constructed of heavy-duty nylon tire cord and rubber similar to the materials used to make passenger car treads. Also on the market are Columbian Rope's DuMore slings of nylon and Dacron.

Advances in Olefins

Among polyolefin materials used for marine ropes and other end uses where strength and durability are important, polyethylene ropes in use for several years are now being rivalled by polypropylene. Ropes made of polypropylene as well as the more familiar polyethylene have advantages of low specific gravity that allows them to float; complete imperviousness to water; resistance to rot, mold and mildew as well as fungus growth; resistance to salt water, alkalies and acids; flexibility even in below zero temperatures.

With such properties it is understandable that producers of these filaments for cordage purposes foresee a big market for their product with profit opportunities for rope makers and big savings for rope users. Reeves Brothers, a pioneer in the use of olefin materials in ropes and cordage, has added polypropylene filaments to its production of polyethylene for marine cordage.

STRENGTH WITHOUT BULK—For the strenuous purposes of marine towage, nylon ropes are increasingly replacing manila. Greater strength, lighter weight and less bulk along with longer use life are some of the reasons.

Plymouth Cordage Co. reports that polypropylene ropes have reduced creep under constant load and that polypropylene's exceptional lightness is a distinct advantage in the marine field.

During recent months also Dawbarn Brothers of Waynesboro, Va., brought out for the rope and cordage trade a 3,000 denier, 16 end polypropylene high tenacity multifilament yarn for use in large hawsers. Acceptance of this product is reported to be good.

Rayon & Nylon in Tires

In 1958, according to Du Pont, one out of every three tires manufactured in this country was made with nylon cord reinforcement. Since there are few sales of nylon cord tires as original equipment, this figure reveals a deep penetration of the replacement passenger and truck tire markets. Du Pont also reports that to help maintain this rate of penetration in the replacement market (now 40% nylon compared with 10% nylon in 1955), it is continuing a program of research, technical service, and advertising.

Now in full commercial production is a new kind of nylon tire yarn made by Allied Chemical. Naturally gold in color, rather than the conventional white of other nylon yarns, Allied Chemical aptly trademarked it Golden Caprolan. The new nylon yarn is said to have good heat stability and a high level of resistance to flex fatigue, contributing importantly to the sidewall life of tires in which the new yarn is used.

Meanwhile, rayon tire cord has also been making news. Greatly improved viscose tire cord known as Tyrex is being produced in larger and larger quantities and being promoted with greater and greater vigor. The effort to promote Tyrex both to the auto industry and the public is carried on by Tyrex, Inc., an association representing five major producers of tire cord. They are American Enka Corp., American Viscose Corp., Beaunit Mills, Inc., Courtaulds (Canada) Inc., and Industrial Rayon Corp.

Along with the joint promotional drive to increase consumption of Tyrex, individual producers continued to improve this tire yarn and expand its pro-



duction. American Enka, for example, announced this summer that it was producing an improved Tyrex in preliminary commercial quantities. Enka stated that the new tire yarn was the highest quality yarn for tires and other industrial uses yet produced by the company, with physical properties, particularly strength at new levels. The new yarn is available in 1100, 1650 and 2200 denier in quantities of 5,000 to 25,000 pounds, according to individual customer's requirements. Enka reports that its production of Tyrex yarns has steadily increased and is now over twice what it was in June, 1958. Further additions to the company's Tyrex capacity are planned for the coming months.

Another Tyrex producer, Industrial Rayon, is also expanding its capacity. On July 31, president Hayden B. Kline told shareholders that Industrial expects to have its Cleveland plant converted from rayon tire cord to Tyrex by the end of the year. He also revealed that a further increase in Tyrex cord capacity at the company's Painesville, Ohio, plant had been approved and would be completed by the end of the year.

Kline said that, as increased supplies of Tyrex viscose cord become available, "it is expected that greater use of this product will be made in the replacement passenger tire and truck tire market areas." He also pointed out that Tyrex cord tires would be standard equipment on virtually all new 1960 auto models.

Filters for Seawater

An important industrial application for synthetic fibers has been for filtration purposes. Union Carbide's woven fabric of Dynel is now used in electric membrane demineralizing plants to remove dissolved salts and minerals from brackish water and, in some locations, from sea water. Continuous ion transfer takes place in the purification process, in which dissolved, ionized salts and minerals travel under electrical force through the special resin-treated fabrics and are drained off. Developed by Ionics, Inc., of Cambridge, Mass., the demineralizing plants are now in use providing drinkable water in several locations throughout the world.

Use of thread made from the newer high-strength synthetic fibers is increasing. Du Pont's Taslan textured nylon threads with bulk equal to either linen or cotton thread are being used in inseaming of shoes. The threads reportedly impart improved wax pickup, good holding of the last stitch, and a tight hinge. Although originally introduced in inseaming, the threads are expected to eventually fit into other shoe sewing operations.

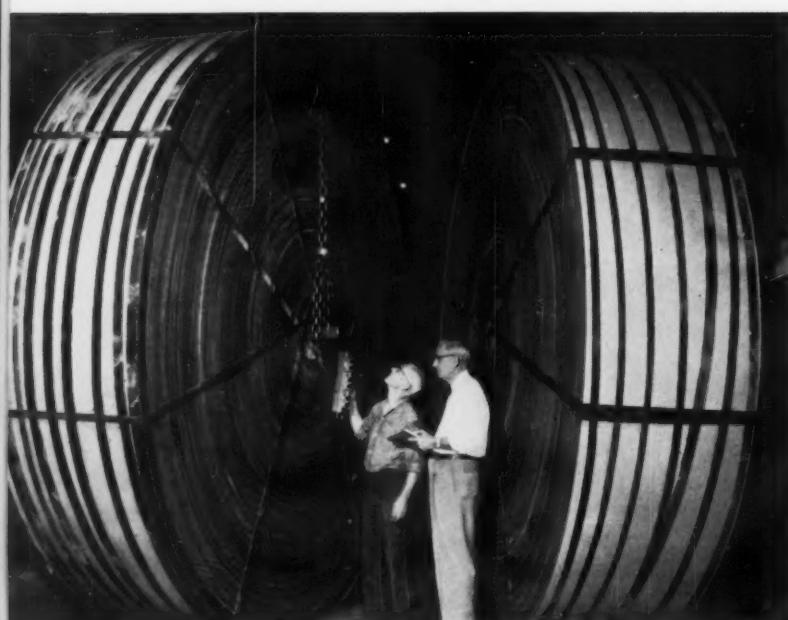
New acid-resistant uniforms, designed for specialized industrial use, are now being marketed by a number of uniform manufacturers. The uniforms are woven of continuous filament yarns of Dacron polyester fiber. In addition to being virtually lint-free, they resist deterioration by acids, alkalis, chemicals, micro-organisms, and mildew.

Some 13 manufacturers are pushing sales of nylon reinforced work gloves by supplying free display units designed to develop impulse buying. Ekland Leather Co., a large leather tanner provides for its workers nylon reinforced cotton work gloves. Ekland said that, although such gloves cost more than conventional ones, they more than make up the price differential with the additional service they give.

Farm and ranch operators are finding increasing use for neoprene-coated nylon as irrigation dams. Colorado Tent & Awning Co. and Firestone Rubber Co. are among fabricators producing the dams, which are said to be easier to handle, more efficient in use, and more economical than conventional canvas dams.

While nylon dams are being used to hold back water, a new synthetic-coated nylon manufactured by the Aviation Products Division of Goodyear is being used to contain liquid, in quantities of 50,000 gallons. The new fabric tanks are for both commercial and military application. The Army Corps of Engineers has used them for off-shore fuel storage, as they are impervious to climate and the effects of contact with liquid petroleum products. The "pillows," which measure 64 feet long, 24 feet high and weigh about one ton when collapsed, have a vent-pipe and a filler-discharge fitting. Goodyear is equipped to make such tanks with rated capacities of 100,000 gallons.

Of special interest for reinforcing mechanical rubber goods is a new yarn introduced recently by Du Pont. Said to be the first successful adhesive-finished rayon yarn, the new yarn is a high tenacity rayon with the designation Type 272-F. It offers important advantages, according to Du Pont, in processing and performance. Capable of being processed on conventional weaving equipment, the new yarn offers the advantages of adhesion without the necessity of dipping the fabric. It thereby reduces the need for adhesive-dipped fabrics with short shelf life. End-uses foreseen include conveyor belting, wrapped and braided hose, and other in-rubber uses where high strength and good wet and dry adhesion are required.



BIG BELT—Packaged in these rolls is one mile of cotton-nylon conveyor belting to move limestone a half mile from quarry to mill at 1,000 tons an hour. The four-ply rubber covered fabric was made by Goodyear.

MANMADE
FIBERS
IN

WOMENSWEAR

IN WOMENSWEAR during the coming fall and spring seasons the fashion emphasis will be on fabrics. Lacking any really sensational new departures in dress styles, such as that provided by the chemise two years ago and the empire silhouette of last year, pacesetting designers are relying heavily on fabric textures to make the garments of the next 12 months attractive and unusual, and thus capable of bringing women into the stores to buy and buy again.

Variety, versatility, luster and luxurious "shaggy" effects underscored in current fashion trends give to manmade fibers unprecedented opportunities to dominate the womenswear apparel market. For the protean forms and magical adaptabilities of manmade fibers and yarns make them peculiarly fitted to meet the demands of today's heterogeneous fashion trends.

Polyester fibers combined with cotton are showing up in a variety of fabrics which will be important in womenswear in coming months. Du Pont reports, for example, that its Dacron polyester fiber combined in fabrics with cotton on a 65-35% basis is gaining widespread acceptance in the important segment of the women's and misses' dress industry which makes garments in the retail price range from \$14.95 to \$79.95. Virtually every major type of dress fabric is available in the Dacron-cotton blend and such fabrics are being cut for clothes for a wide variety of occasions.

Meanwhile, Dacron, long the only polyester fiber manufactured in the United States, will face competition increasingly in the months ahead. Three new polyesters are emerging into more ample supply to compete with Dacron. The first of these is Kodel, the polyester fiber of Tennessee Eastman Co., introduced two years ago, but until recently available only in limited quantities. Now, however, Eastman has under way a major addition to its Kodel production facilities at Kingsport, Tenn., which will bring capacity for the new fiber above 20 million pounds annually. Initial production from the new plant will be available by mid 1960.

The second new polyester recently introduced is Vycron, produced by Beaunit Mills, Inc., Fibers Division. Virtually all important mills, and many leading converters, are bringing out womenswear fabrics of Vycron combined with rayon and also with cotton. Among the properties of Vycron reported by Beaunit are greater strength than other polyester fibers now on the market, thus permitting lighter, more sheer fabrics, greater affinity for dyestuffs than other polyesters, and greater resistance to pilling. (For a detailed report on Vycron and its properties see *MTM* Aug. '59, p. 33).

The third and most recent polyester to appear on the American scene is Teron which will be produced by Fiber Industries, Inc., a company owned jointly by

Celanese Corp. of America and Imperial Chemical Industries Ltd. of Great Britain. A plant to produce Teron now under construction in Shelby, N. C. will have an ultimate capacity of 40 million pounds a year.

In July it was announced that Fiber Industries had been granted a license to produce and market a polyester fiber by the Du Pont Co., before the expiration of the basic polyester patent in July, 1961. As a result of this license, Fiber Industries plans to have commercial quantities of its new fiber available by the middle of next year. The fiber will be produced in both staple and filament forms for apparel and home furnishings end uses. It will be marketed by Celanese.

Making marketing news also in coming months will be blends of rayon with cotton. Long promoted by such producers of rayon staple fiber as American Viscose Corp. and Courtaulds (Ala.) Inc., fabrics made of rayon and cotton were slow in catching on. But there are indications that mill and converter resistance currently is fast crumbling.

Rayon-cotton blends are expected to be much in evidence in a wide range of women's dress fabrics in the next 12 months. In fact, it is reported that mills running this combination on their looms are getting



TWO ARE BETTER THAN ONE—Two manmade fibers, Du Pont Orlon and rayon were blended 50/50 in this plaid fabric made up into a three piece outfit that washes easily, dries fast.

an unexpected bonus in the way these yarns weave with far fewer breaks than all-cotton, thus enabling weaving departments to speed up output and lower costs.

A representative new rayon-cotton blend is a corduroy recently introduced by Crompton-Richmond Co. The fabric is a 50-50 blend of American Viscose Corp. rayon and cotton with an all-cotton backing. It is the first corduroy to be marketed under the "Cotron" label of American Viscose. "Cotron" is this fiber producer's trademark for blends of its rayon and cotton which measure up to standards set by it.

Also being successfully combined with cotton is Avron, a new high strength rayon of American Viscose. Because of its high strength, Avron is said to spin to yarns of much finer count when combined with cotton, thus opening up broad perspectives for new fabric design. In cotton blends it is said to produce excellent wash-and-wear fabrics with far greater tensile strength than all-cotton constructions. It is also recommended for blends with polyester fibers, with Celanese's Arnel triacetate fiber and with acrylic fibers such as Chemstrand's Acrilan and Du Pont's Orlon.

A further development in the use of rayon fibers in womenswear has been the appearance in attractive fabrics of two new cross-linked cellulosic fibers with special properties developed by Courtaulds. One of these new fibers is tradenamed Topel. For spring, 1960, Topel is being developed by Cohama in a new 100% construction with a hand resembling a silk broadcloth. Tradenamed "Sunny" and already test-marketed by four womenswear manufacturers, the fabric will be the basis for a winter resort and summer apparel promotion by Cohama to be called the "Regatta" group. The fabrics in this group will be coordinated with wool fabrics because of the ability of the Topel cloth to be dyed to match the wool goods. Other advantages of the Cohama Topel fabric are a resistance to creases and ease in laundering.

Corval, Courtaulds' second new cellulosic fiber, characterized by wool-like properties, has been introduced to womenswear in a 50-50 blend with Dacron by Milliken in a fabric named Sangaree. Broadened use of this fabric for women's and children's sportswear and dresses is planned for this fall and next spring. The Milliken Corval-Dacron fabric has good wash-and-wear qualities, vibrant colors. It is available in crisp, colorful checks and a variety of lively plaids.

Corval's Advantages

Looking ahead to new profit opportunities, millmen and converters will take notice that Corval, according to Courtaulds, gives fabrics a luxurious hand that makes them appear far more expensive than they are. Corval takes resin treatment for washability and wrinkle resistance with good results, and Corval fabrics can be dyed with conventional dyes and techniques to yield brilliant shades. The fiber blends with other manmades and with wool with an easy affinity.

Among new fibers, profit opportunities also exist for Rhovyl, the polyvinyl chloride fiber of Rhodia, Inc., the representative in the United States of Rhodiaceta in France, one of Europe's major producers of acetate, nylon, polyester and acrylic fibers. Rhovyl's properties of non-inflammability, and great warmth, resistance to moisture and chemical attack have led to the fiber's increasing use by mills searching for new horizons in fabric development.

Interest in Rhovyl is expected to be accelerated by a substantial price reduction which goes into effect

this month, and the addition of eight new solution-dyed colors and five stock dyed colors to the Rhovyl color range. Rhovyl's price has been reduced to \$1.00 a pound from the previous price of \$1.18 for natural fiber, f.o.b. New Jersey. Solution dyed Rhovyl, which was priced at \$1.40 and \$1.50 is now \$1.15 and \$1.25.

Rhovyl is available both as non-shrinking and high shrinkage fiber. The non-shrinkage type, Rhovyl-T, is finding a new end use as an interlining bat for women's house coats and quilted robes. In this function, its warmth, dimensional stability in laundering and freedom from felting and matting are important advantages. Another new development for Rhovyl-T is its use in a fur-like pile fabric made by attaching to a wool back cloth a pile of 70% Rhovyl and 30% viscose by a flocking technique. The resulting fabric can be used in women's coats and in other garments where a fur-like pile outer or lining fabric is wanted. Under development also are woven pile fabrics with Rhovyl as the pile fiber.

Arnel Moves Ahead

In womenswear today Celanese Arnel triacetate fiber has already established itself in a wide variety of dress and leisure fabrics. Widening this firm hold on the market, Arnel in coming months will appear in a new collection of intimate blends with rayon. Among the womenswear fabrics in this blend which will be available to provide profit opportunities for converters and cutters will be challis, broadcloths and light weight skirt and slack fabrics.

In combinations with cotton, Arnel staple fiber will appear in a new group of linen-textured fabrics and also in denims for sportswear. In filament form, Arnel's acceptance in a broad variety of constructions and apparel types will become still more widespread in coming months. Stonecutter Mills, for example, has a new range of Arnel blends which include textured and fancy fabrics, linens, oxfords, gabardines and tropicals.

Opportunities for profit in fabric manufacturing are presented by another fiber even newer than Arnel. This is Zefran, Dow's acrylic which is rapidly becoming better known throughout the textile industry. It is being used in blends with other fibers, and at the same time it is said to be showing great promise in 100% Zefran fabrics mainly for the womenswear trade. Chadwick Mills, for one, will bring out this fall a new 100% Zefran cloth which will be used extensively in dresses and coordinates in plaids, monotone and herringbone tweeds. Cutters using this range include Nelly de Grab, Masket Brothers, Lord's, Mam'sell Dress and Clothes For You.

In women's coats, deep-pile garments made with acrylic fibers will continue to be important money makers for coat manufacturers and retailers. Union Carbide's Dynel, a leading fiber in this end use, has added four new solution-dyed colors—green, marine blue, pewter and caramel to its six established colors, thus widening the styling range for Dynel deep-pile fabrics in coats and other womenswear uses.

Adding greatly to the style prestige of deep-pile coats of Dynel combined with Du Pont's Orlon, Glenoilo Mills "Glenara" fabrics will be offered in the fall lines of four high-fashion coat houses. The coats will be designed by such leading French designers as Patou and Heims and from Italy, Fabiani and Cesare Guidi.

CHECKS AND STRIPES—A variety of fancy patterns and textures will add new profit possibilities to stretch nylon tights in the coming cold weather season when these popular items are snapped up in the stores.

Another new development for Dynel which has interesting profit possibilities is its appearance in a blend with wool which is said to be a wash-and-wear fabric. The new fabric, called Dynameau, combines 70% wool with 30% Dynel and offers good strength, shrink resistance and press retention. Produced by Woolmark Corp., the wool-Dynel blend has shown in extensive testing that it has an average shrinkage of less than 3% after five standard wool washes, and is certified to be machine washable, to drip dry and need little or no ironing.

Gaining acceptance in the deep-pile coat field also is Darvan, Goodrich's nytril fiber which is said to possess exceptional softness and luxury in this end use. Other end uses for Darvan with good profit potential for mills, converters and garment manufacturers are women's dresses, sweaters, skirts and slacks.

New Gains for Knitwear

In the whole broad area of womenswear, one of the most dynamic and profit-promising trends is the movement toward wider use of knitted fabrics. Knitted garments today are truly riding a crest of popularity in the fashion world and the crest may yet sweep forward to greater heights before it subsides.

In the broad and varied field of knitted outerwear, dresses and suits, particularly of jersey, have achieved new heights of popularity because of the high comfort factors, the ease of care and shape retention permitted by the manmade fibers. Du Pont's Orlon, Chemstrand's Acrilan, and now the newer warmth fibers such as American Cyanamid's Creslan along with Dow's Zefran and Goodrich's Darvan all are contributing to wider horizons for knit wear styling and function in the field of women's and children's garments.

For Orlon, the leading manmade volume-wise in knitted uses, new perspectives in both variety and style of garments will open with the fall sweater season. Bulky knits of Orlon are extremely popular and manufacturers are bringing out new fabric types with new color and surface effects for the months ahead. Important, too, in upcoming style trends are brushed fabrics of Orlon.



Also breaking new ground, Shelley Knitting Mills, this spring introduced a pace-setting napped and sheared interlock Orlon fabric in its line of "Wundana" sweaters characterized by extreme softness and a rich plush-like depth of surface. Offered in pastels and deep vibrant colors, these sweaters were styled as cardigans, pullovers with big colors and also scoop-necked evening sweaters.

Another new departure for Orlon was Du Pont's introduction earlier this year of the fiber in continuous filament form. Named "Orlon Cantreec" the new yarn, is designed to give the sleek look of silk to knitwear. It can be textured by a variety of processes to obtain a range of surface effects and handles. The new kind of Orlon made its first appearance in knitwear styled by Givenchy and produced in the U. S. by Talbott of yarn processed by Textured Yarn Co.

Moving from the realm of high style to the ultra practical area of infants' wear, a new development this summer was the appearance of a group of layette items knit from a yarn blending 80% Orlon and 20% cotton. Made by William Carter Co., the new fabric will also be used in children's sleepwear and underwear. Advantages are said to be exceptional softness and ease of laundering.

In jersey fabrics, Creslan made an initial appearance in a 75/25 Creslan-wool blend in skirts and dresses made by Eleanor Green of California out of a fabric knitted by Lebanon. Another new name in jersey goods is Celanese's Arnel triacetate fiber. Following up its success of last year in Arnel-Orlon bulky knits, Arnel in the months ahead will make



SMART AND COZY—Rayon's versatility is shown by the fact that both the young lady's "granny gown" and the tufted bedspread are made of rayon.

its appearance in supple, shape retaining jersey for women's dresses and separates.

Kodel, Eastman's new acrylic, is being spun into knitting yarns in 50/50 blends with cotton by Aberfoyle Mfg. Co. It is expected that these yarns will find a growing acceptance in knit goods in coming months.

A variety of end uses in knitwear has been selected as a prime target area to demonstrate the merits of Darvan, Goodrich's new acrylic. Among the interesting fashion knits utilizing Darvan are pullover and cardigan sweaters produced by Exmoor, having the advantages according to Goodrich of extreme softness and shape retention in laundering so as to require no blocking or stretching. Other knitwear uses of Darvan are in bulkies, jerseys, deep pile fabrics and hand knitting yarn.

Also in the area of knitting yarns, high shrinkage Rhovyl, Rhodia's versatile fiber, is being combined with wool to produce soft, bulky knitting yarns both for sweater manufacturers and the hand knitting trade. Similarly Rhovyl is being combined with acrylics and nylon to produce other types of knitting yarns.

New Styles Trends In Hosiery

Following up on the success of colored nylons, the hosiery industry currently is exploring new paths to style excitement by bringing out striped and textured sheer nylon stockings. Meanwhile, the market for above-the-knee opaque nylons is being expanded to exploit the success achieved last year by stretch nylon in tights—the so-called leotards.

Diamond textures are reported strong in popularity in textured sheer nylons among retail buyers now ordering for fall and winter merchandising. In colored sheers, deep browns are said to be strongest in demand among the new colors; subtle green tints are also reported to be gaining in popularity; a third color rising in importance is amethyst. Meanwhile, grays and off-blacks remain leaders in sales of colored sheers.

The runaway success last year of stretch nylon tights has led to increased production of these garments with upgrading of quality and variety of styles. Tights in the coming fall and winter season will be one of the most heavily promoted items in women's wear selling. Added to the already established colors of black, red and blue will be new colors such as dull green and gold tones. In addition to solid colors, there will be a variety of stripes, ribs and textured effects available.

MANMADE
FIBERS
IN

MENSWEAR

THE REVOLUTION in favor of liveliness, color and eye-catching good looks set off in men's apparel by the manmade fibers shows no sign of abating. Thanks to these fibers and the creative resourcefulness of the textile and garment industries in using their versatile properties, menswear grows more varied, more interesting and more ruggedly serviceable with every passing season.

Everywhere one looks the new fibers are adding new things to men's wardrobes. Deep pile fur-like fabrics of manmade fibers, for example, going beyond their initial success a few years ago in women's coats, are now offering men the chance to keep warm and look smart in cold weather; and incidentally,

these same fabrics, catching on fast in menswear, offer mills, and garment manufacturers chances of good business in coming months and years. Knitted and woven of fibers including Du Pont's Orlon, Union Carbide's Dynel and Goodrich's Darvan, burly, bulky, genuinely cold weather coats for men will be in the stores for men this fall in an increasing range of styles and fabric textures. What is more, there is every indication that this style trend to give men coats resembling real fur without the high price tags and maintenance problems of fur, is just beginning to roll. The trend promises really to snowball by winter 1961, giving plenty of time for mills and coat manufacturers who do not have the fabrics and

garments in their lines to climb on the success band-wagon before it reaches its top speed.

Perhaps an even bigger market for deep pile fabrics is in a variety of warmth linings for men's leisure and sports outerwear. Outdoor coats of all types from light zipper jackets to heavy tweed and melton semi-dress fingertip length coats are more and more being lined with manmade fiber pile fabrics. These fabrics give warmth, of course, and also the luxury and smartness formerly associated with fur linings. Their big advantage is that they do not mat down, are light in weight and easy to dry clean or home launder.

Another new development in men's sports outerwear is the first use of textured nylon filament yarns for this end use. A new stretch nylon fabric with a napped inside surface has been produced by Stretch Fabrics, Inc., using Chemstrand nylon. The fabric has been cut into jackets by McGregor Sportswear, to retail at \$19.95 in four sizes, small, medium, large and extra large.

In men's sportswear, another new style is the "jump suit", modeled after paratrooper's coveralls, but with a big dash of style and color added. Created by Bill Parry, a West Coast designer, the new one-piece sports suits have cuffless trousers and a front-length zipper. Cut from a warm, soft fabric of 70% Chemstrand's Acrlan acrylic fiber and 30% wool, the new garment allows the sportsman complete freedom of movement in golf, hiking or fishing, or for working around the house. A clasp belt cinches the waist for trim appearance and big patch pockets allow plenty of storage room.

The success of Bondyne fabrics in menswear, as well as their booming acceptance in women's and children's wear has led to the creation of Bondyne Associates, Inc., to enlarge the current program of licensing and merchandising these materials which are required to contain at least 30% of Dynel, Union Carbide's modacrylic fiber in the filling yarns. Bondyne fabrics were developed several years ago by Greenwood Mills, and one of their initial successes was in men's suits and slack fabrics.

The basic characteristics of Bondyne fabrics are derived from the thermopliability of the Dynel fibers used in the blend. This property enables the woven fabrics to be heat-set, thus imparting a "built-in memory" to the fabric which permits press retention and easy care in garments. In menswear, a new Bondyne development is the introduction of a new group of tropical weight worsted-like constructions for slacks and suits by Reeves Brothers. Combining Dynel with rayon and acetate, the new fabrics have been tradenamed "Prestige Tropicals."

For fall 1959 men's sports coats, there will be larger amounts of Orlon, DuPont's acrylic fiber used in fabrics produced by a number of leading mills. DuPont estimates that more than a million sports coats utilizing Orlon will be produced this year.

Kodel, Eastman's polyester fiber will also be seen more and more in menswear end uses in the coming fall and winter. Men's suits of Kodel will be brought out by such leading cutters as Timely Clothes and Michaels-Stern; slacks will be introduced by Esquire

FOR COLD WINTER NIGHTS—Named "Sleep-walker", this 100% Acrlan sleeping and lounging suit is intended for use on extra chilly occasions such as winter camping, or skiing trips. It comes in bright warm colors, and has hobnail plastic soles.

Sportswear and McGregor-Doniger; shirts and ties by Cluett, Peabody; shirts, pajamas and underwear by Manhattan; rainwear by Alligator.

Fabrics in which Kodel is being used include heavy weight gabardines, flannels and worsted-type constructions; light weight shirting batistes, broadcloths and oxfords. Eastman plans to support the introduction of these new garments and fabrics by an extensive advertising campaign utilizing virtually every form of advertising media including network TV.

Another new fiber whose growing use in menswear offers profit potential for the future is Dow's Zefran. A. D. Ellis Mills, for example has woven 50/50 Zefran-wool fabrics which are being cut into smart sports jackets by such leading manufacturers as Witty, Greif, Duchovany and Fletcher. A summer suiting fabric woven by Mayflower Worsted Co. in a 50/50 Zefran-worsted construction has been cut into extremely light weight suits with good shape and body by Goldman. Cyril Johnson has brought out a 55-45 Zefran-wool suiting which is being used in garments by Browning King.

Creslan, American Cyanamid's acrylic, is also finding its place in the menswear market. Light weight sports slacks for spring and summer were introduced this year in 16 colors by Jaymar-Ruby using a 50/50 Creslan-wool fabric produced by J. P. Stevens. Wrinkle resistance, coolness and long wear are said to be their notable characteristics.





ARNEL AND ORLON—An example of the smart knit shirts now growing in popularity for men is this circular knit of Celanese's Arnel combined with Du Pont Orlon.

A newcomer in the important field of men's summer wash-and-wear suits is Corval, Courtaulds' new cross-linked rayon fiber. Sagner introduced a wash-wear suit of Corval combined with Dacron for this year's summer trade, and, according to Courtaulds, it went well with consumers. Advantages of the Corval-Dacron blend in these garments, it was said, are dyeability to stronger, cleaner colors, a wool-like hand, good laundering stability and a rapid rate of drying.

For baseball uniforms, a new flannel was introduced by Buckland Fabrics composed of 65% Chemstrand's Acrilan, 20% rayon and 15% nylon. A number of manufacturers of baseball uniforms were reported using the fabric with enthusiasm. Advantages of the Acrilan blend over the traditional wool flannel are said to be easy launder-ability without shrinkage; light weight (11 to 11½ ounces) and long wearing durability. The price of \$2.50 a yard for 60" goods is also an advantage for manufacturers aiming at volume sales to Little League and other amateur baseball groups.

Arnel, Celanese's triacetate, also is making gains in men's easy care garments. Burlington recently bought out a line of Arnel-rayon slack fabrics aimed at next year's summer trade. Slacks cut from these fabrics will feature "day-long freshness" as well as easy machine washability and minimum ironing requirements.

Boom in Knitwear

In the fast-moving market for men's sports shirts, knitted fabrics currently are forging ahead. Celanese has developed a number of Arnel-cotton knits which it is offering to knitters as development fabrics to

inspire them to make further use of this combination of fibers.

For Arnel in knitted shirts, Celanese points out these advantages: shrinkage control; good wash-and-wear performance; a soft luxurious hand; and freedom from stretching out of shape.

Another promising trend in men's knitted shirts for fall wear is a widened use of Courtaulds' solution-dyed rayon staple fiber combined with Orlon. Nine manufacturers have included knits of this blend in their new fall lines. Advantages of the combination of solution-dyed rayon with Orlon are said to include increased softness and better color stability. In knitted sport shirts, Corval, Courtaulds' cross-linked fiber, is also being combined with Orlon in garments possessing appealing softness and good laundering qualities.

Meanwhile from Canada comes a report that Terylene polyester fiber produced by Canadian Industries, Ltd., is making a success when used in men's filament tricot sports shirts.

News in Underwear

In men's underwear and sleepwear, manmade fibers are permitting more attractive and serviceable garments. "Cotron", the trademark of American Viscose Corp. for blends of its rayon with cotton, is going into a new line of smart, easily laundered and comfortable boxer shorts manufactured by Coopers using a printed fabric produced by Lowenstein. A similar Cotron line of printed fabrics are going into men's and boys' pajamas made by Weldon.

DuPont's 420 nylon, developed especially for blending with cotton, is finding increasing acceptance in knit underwear. The nylon in the blend is said to increase greatly the wear life of these garments. The same 420 nylon is also going into denim fabrics with increasing success. Among the mills producing these new "nylon fortified" denims are Cone, Stevens, and Pepperell. The Stevens denims feature an iridescent effect in five colors which are said to make them particularly applicable for sports and leisure wear.

In rainwear also the new fibers are adding plus qualities of styling and durability. Creslan is being used for raincoats in a 70/30 blend with cotton. Light weight, a soft hand, and easy washing are said to be some of the properties Creslan brings to this end use. Another new note in rainwear was the appearance this spring of the first raincoats made of fabrics blending Dacron and Orlon on a 50/50 basis. Long wear, wrinkle resistance and easy launderability are cited as the functional properties of this raincoat fabric.

Another Dacron development with good suggestion of profit coming down the textile pike are tropical work pants for men combining Dacron with rayon in a light weight comfortable fabric that will retail in finished garments for \$5.95. In work clothing also, coming months will see the appearance of a gabardine blending Orlon, cotton and DuPont's 420 nylon in both tropical and winter weight work pants that will combine ease of care with rugged wearing qualities. ■

Readers who wish further information about any of the new fabrics and new end uses described in this report are invited to write the editors, **MODERN TEXTILES MAGAZINE**, 303 Fifth Ave., New York 16, N. Y.

Reprints of this Report available at nominal cost.



William R. Austin
VICE PRESIDENT, YARN SALES



John E. Meon
VICE PRESIDENT, FABRIC SALES

Smith of Avondale

(Continued from Page 34)

all business policy expressed by a phrase he likes to use: "Make it better and make it at a lower cost."

Modernization at Avondale also has proceeded boldly in other equally important ways. In 1954, the head sales office was moved from New York City to Birmingham. Behind this move was a growing realization that New York City, while an important center for the marketing of Avondale's woven goods, was not all-important. As vice president and comptroller John Fay explains, Avondale's fabrics are sold all over the United States. In recent years, Miami, Dallas, Los Angeles, St. Louis and Kansas City have grown in importance as selling centers for Avondale's smartly styled line of combed and carded colored dress and sports wear fabrics. When the main sales office was on Worth Street, orders from branch offices scattered throughout the country had to go first to New York and then be sent south to the mills in Alabama. With the head sales office transferred to Birmingham, "mail time"—the time during which the orders are in transit through the mails—is greatly reduced. Paper work is drastically cut down. More important still, goods are shipped within 48 hours after receipt of the order, and often much sooner.

Along with the transfer of the main sales office to Birmingham, the design offices were also moved from New York City to Alabama. Net gain from this move is better coordination between sales, design and mill production enabling Avondale to get out its two major seasonal lines—spring and fall—more smoothly and faster. Under the new set-up, the spring line, for example, is planned in December, put in final shape or "selected" in March by key Avondale people, and presented to the trade by Avondale salesmen not later than June.

An unpretentious, almost self-effacing man, Craig Smith as president has laid great stress on the development of a team of capable executives to run Avondale Mills. Avondale's top management group is a "thin" one in that the company is far from overloaded with vice presidents. Nevertheless, Smith believes in surrounding himself with good executives and allowing them the freedom to do their jobs as best they can. The results so far have been good.

In describing the management group at Avondale as a team, Smith is not simply paying lip service to a currently fashionable word in business and government circles. A team, he demonstrates in practice is a group that works together to gain a mutually desired victory. In this case, of course, the victory sought is the continued profitable operation and growth of Avondale.

Keeps Key Men Informed

To achieve this end, the team of upper management men at Avondale meets every Monday and Friday at Smith's office in Sylacauga. In these meetings current problems are worked out in free discussion; future activities of Avondale are planned. Smith uses these frequent meetings to communicate closely and fully with his key men. He tells them exactly how the company's affairs are going, and in turn he learns from them about the progress and problems of their individual departments. Frictions between departments are brought to light and lubricated; difficulties are worked out in the open with Smith acting as mediator and, when necessary, as final arbiter.

Among the men who commonly attend these meetings are Donald Comer, Jr., executive vice president; Bill Austin, vice president in charge of yarn sales; John Fay; John Meon, vice president in charge of fabric sales; Alec (W.A.) Turner who is vice president and general superintendent; J. E. Warren, vice

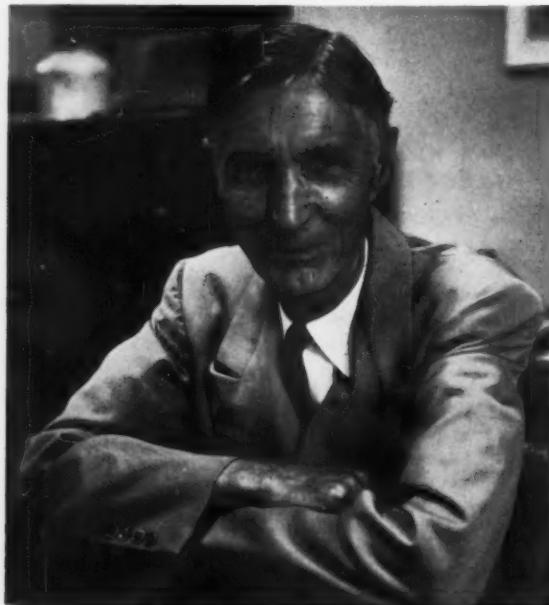
president, purchasing; W. J. McKemie in charge of costs and standards; Jim Mitchell in charge of quality control and O. K. Nivens who supervises cotton purchasing.

Inter-management communication of this kind is not at Avondale limited to the officers. Every 12 weeks there is a big meeting attended by some 100 management men going down to mill foremen. At these meetings, the progress of the company toward achievement of its current objectives is reviewed and evaluated. Executives from Smith down say what they think it is important to say. The ever-recurrent themes of cost reduction, and quality improvement are discussed. As Comptroller Fay puts it, at these meetings unit costs and profits measured in mills and tenths of mills are emphasized.

To support the usefulness of these meetings, detailed reports on sales and planning progress, and operations analyses are sent every four weeks to company officers and mill superintendents; every 12 weeks similar reports go to all supervisory personnel again as far down the line as foremen.

Increased Efficiency for Survival

This kind of tight, hard-working, efficient management is necessary for a mill group like Avondale to survive in the difficult textile climate of today, Craig Smith believes. He knows, as so many other mill executives know, that it is not easy to make even modest profits in textiles in the light of present conditions. Avondale, along with other solvent and profit-earning companies in the textile field, he points out, has survived only by drastically increasing its efficiency. Faced in recent years with higher prices for cotton, with much higher wage scales and with prices for its products "pitifully low," profitable survival has been possible only by making more and better use of machinery, by sharply reducing costs wherever possible, Smith says.



J. E. Warren
VICE PRESIDENT, PURCHASING



W. A. Turner
VICE PRESIDENT AND GENERAL SUPERINTENDENT

Although the going is rough in textiles at present, Craig Smith, like many other leaders of the industry, sees distinct possibilities for improvement in the future. "The liquidation of spindles in recent years," he says, "raises the hopeful possibility that the future may see a balance or near balance between productive capacity and demand. If this should occur, then management and investors in textile manufacturing companies may have some hope that improved profits may be forthcoming."

This hopeful possibility is overshadowed of course by a big "if" and no one is more aware of that "if" than Craig Smith. "If," he says, "our markets are not further taken away from us by an increasing flood of low-wage imports."

In Fore-Front of Import Battle

To obtain protection from the present and possibly worse future dangers from such imports is the number one task of the U. S. textile industry, he believes. He has already devoted much time and energy to seeking solutions for this problem. He has served as president of the American Cotton Manufacturers Institute and he is today a director of this trade association so active in the fight to save the American textile industry from the destructive effects of low-wage foreign imports. In the future Craig Smith may be expected to continue to give his wise counsel and energetic leadership in this difficult and urgent task.

Closer to home, his major preoccupation will continue, of course, to be the prosperous operation of Avondale Mills. And heading a team of capable executives as he does, backed by a body of loyal and devoted workers in the splendidly equipped Avondale plants, there can be little doubt that under his leadership the company will continue to grow and prosper. ■

Industrial Promotes Carpet Nylon

A two-page, four color advertisement in the September issue of "House Beautiful" magazine will start a campaign by the Nylon Division of Industrial Rayon Corp. to extend its carpet nylon program to the consumer level. The ad will be keyed to the increasing use of the company's new 22 denier nylon in blends with wool.

The ad will take the unprecedented step of offering readers three by five inch sample swatches of any of the six illustrated carpet fabrics in any of the 51 listed colors. The ad also will show consumers for the first time photographic evidence of the extra wear obtained from carpet fabrics when 30% IRC nylon is added to wool blends and it will also carry closeup views of the fabrics of six different manufacturers. This is believed to be the first ad in which consumers will be given the opportunity to appraise six different type fabrics of six leading manufacturers and to request swatches of the actual fabrics. All of the carpets illustrated in the ad are 70/30 wool/nylon fabrics containing a blend of 70% wool, 15% 15 denier and 15% 22 denier IRC nylon.

The requests for sample swatches will be turned over to the carpet manufacturers who will forward them for follow-up to retailers in the localities from which the requests originate. IRC'S consumer booklet on carpeting also will be offered in the same ad.

The six manufacturers participating in the promotion and their featured fabrics are Artloom's "Artglo"; Adlon's "Lancaster"; Bigelow-Sanford's "Echo Weave" group; Gulistan's "Brookpark; Hardwick & Magee's "Special Twist" and Magee's "President".

The promotion will be merchandised at the trade level with mailings before and after publication. In addition, a special four-page, multi-color brochure designed in cooperation with "House Beautiful" and using the front cover of the September issue which



LOOKING THEM OVER—Inspecting samples of carpet made with Industrial Rayon's new 22 denier nylon are left to right: R. E. Tilles, Jr., nylon advertising manager, Industrial Rayon Corp.; Ralph Bell, manager, Hardwick & Magee Retail Stores; C. E. Rogers, Jr., nylon sales manager, Industrial Rayon Corp.; Earl Glaizer, president, Hardwick & Magee Co.

features carpeting, will be sent to 26,000 retailers, interior decorators, architects, carpet installers and floor covering cleaners.

Another special mailing, prepared especially by House Beautiful for this promotion, will be forwarded by the magazine to retailers in all major markets. Window and floor display cards will be made available. Reprints of the actual wear test, for use in local newspaper ads, will be supplied to retailers with the notation that the test was not a laboratory test but was an actual wear test made on the steps of a subway entrance.

Printing with Emulsions

(Continued from Page 47)

The only value of print paste thickeners is to provide the proper characteristics to print pastes during the printing operation. After this operation is completed they not only do not serve any useful purpose, but may actually be a detriment. The presence of an appreciable amount of extraneous material in the printed cloth may interfere with subsequent processing, particularly with the new finishes where they

may prevent the penetration of the resin into the fibers. Also, their presence may lead to considerable extra handling in an effort to remove them so that the cloth will be more susceptible to subsequent treatment.

Efforts to obtain satisfactory results with emulsions in printing all types of colorants can have very beneficial results. The relatively small amounts of extraneous material present in emulsions provide advantages not present with the thickeners used previously and avoids the disadvantages.

AATTC Technical Program

Details of the technical program for the 1959 national convention of the American Association of Textile Chemists and Colorists, has been announced. Arnold M. Sookne, of Harris Research Laboratories, is program chairman.

Paul Stam, of J. P. Stevens and Co., will act as chairman at a "Wash and Wear" symposium at 9:15

a.m. to 12:15 p.m., Thursday, October 8. In the afternoon, James Greer, Burlington Mills Corp., will preside at a session on "Dyeing and Finishing of Blends."

The third symposium, "New Dyeing and Finishing Processes," will be held Friday morning, October 9, with Fred Fortress, Celanese Corp. of America, as presiding officer. The afternoon will be given over to the intersectional paper contest.



World Wide

WEST EUROPE'S TEXTILE OUTPUT this year should surpass the depressed figures of 1958, the UN Economic Commission for Europe predicts. ECE's first 1959 quarterly report noted that for West Europe, as a whole, first quarter production was about the same as a year earlier. But output was 5% higher in Belgium; 6% in Denmark; 7% in Yugoslavia; 2% in Finland, Italy and Holland, but 25% down in France; 11% in Austria; 6% in West Germany and Britain, and 4% in Sweden.

FIVE EUROMART COUNTRIES' WOOL mill and marketing activities make up 40% of the Free World total. This was noted by Louis Robichez, director of France's Central Wool Commission, at the group's 37th annual meeting. This figure was 5% higher than in 1953. Euromart countries (France, Germany, Italy, Holland, Belgium and Luxembourg) consumed 300,000 metric tons of scoured wool, 30% of the free world clip, in 1958, greater than the UK and Japan together. Euromart's carded yarn share was 42%; worsteds, 41.5%, and woolens 37.5%.

JAPAN, FRANCE SIGN VINYLON yarn agreement which should see the French Rhone-Poulenc company, which already makes polyvinyl alcohol, soon authorized to turn out vinylon. The Japanese firm was Kurashiki Rayon.

LATEST ON JAPAN'S EXPORT control list may be vinyl used for raincoats. Tokyo is disturbed by reports that US manufacturers will seek bans on imports of the Japanese product. There are so many small Japanese firms that the Government is trying to group them into an Eastern and a Western section for possible future control.

FRANCE, SPAIN EASE IMPORT barriers on textiles. The French list, however, would apply particularly to the US and cover such items as cotton, silk, wool and synthetic fiber material, as well as felt goods, clothing and muslins. The eased list represents withdrawal of quotas; tariffs remain on most items. The Spanish list would apply to members of the Organization for European Economic Cooperation which Spain has just joined.

NEW GERMAN MANMADE FIBER PLANT has begun production in Buenos Aires, Argentina.

The German company, Farbwerke Hoechst, is half owner with Compania Quimica, in the operating concern called Quimica-Hoechst. The firm makes polyvinyl acetate. It is expected to make textile finishing products as well.

A SWISS FIRM IS PRODUCING a high-tensile rayon fiber developed in Japan. The firm is Viscose Emmenbrucke. The fiber, Z-54, is a cellulosic said to be similar to American Viscose's Fiber 40; American Enka's Fiber 500, and Courtaulds (Alabama) Fiber SM 27. The fiber is understood to be good for blending with cotton, rayon and synthetics. Household, industrial textiles and rai.nwear are major uses.

AUSTRALIAN FIRMS SAY DRIP-DRY woolens have been perfected. The firms, both of Melbourne, are F. R. and C. H. Fogarty and Classic Weaving Mills. They worked on the process with the Commonwealth Scientific and Industrial Research Organization. Chemicals are not involved. The drip-dry property is actually woven into the fabric, Terry Fogarty said. Arnold Lederman, managing director of Classic Weaving Mills, said spring sales were underway for frocks and shirts.

BRITAIN GOES ON CLOSING its cotton mills under the Government's revitalization program. London has told the industry that 6 of 24 million spindles; 45,000 of 245,000 looms and 400,000 of 1.5 million doubling spindles should be scrapped before the end of September. They will be compensated under an \$84 million modernization plan. If they complete scrapping before Aug. 31, 1959, they get a 5% bonus.

UK TEXTILE PRODUCTIVITY is said to be about half of that in the US. An OEEC-Cambridge University report said US textile productivity was 2.3 times greater than the UK, using British prices, and twice as high, using US prices. For rayon, nylon and silk, US productivity was 2.3 times higher; 1.9 for knitting mills, 1.8 and 2.5 for cotton spinning and weaving.

HONG KONG WILL FINALLY CURB shipment of silks made in Communist China to the US. Textile imports from Hong Kong have long been a sore point with US authorities. Hong-Kong-made fabrics are excluded from the new curb. The effective date is Sept. 1, 1959.

"Eve's way with colour," No. 1 of a series specially drawn for Geigy by J. Eeffel



- Tout ce qui est resté en blanc, ça doit être à colorier...

New!

Irgalan Brown GRL Irgalan Blue FGL



Geigy Dyestuffs Division of
Geigy Chemical Corporation
Saw Mill River Road
Ardsley, N. Y.

Two homogeneous dyes which form a valuable addition to the Irgalan range. Suitable for use on wool, silk and polyamide fibres, and mixtures of these, at all stages of manufacture.

Also suitable for melange printing.

Technical information on reverse side.

News for the dyer

Irgalan Brown GRL Irgalan Blue FGL

Geigy

Irgalan Brown GRL and Irgalan Blue FGL have the uniform dyeing characteristics and outstanding fastness properties, in particular light fastness, for which the Irgalans are famous.

Irgalan Brown GRL is a neutral dyeing dyestuff which supplements the existing range of Irgalan Browns, offering a redder tone in artificial light and excellent light fastness.

Irgalan Blue FGL is a bloomy neutral shade of improved purity and brightness, recommended primarily for the production of self-shades.

Fastness properties	Irgalan Brown GRL		Irgalan Blue FGL	
	WOOL	SPUN NYLON	WOOL	SPUN NYLON
LIGHT FASTNESS				
Fadeometer	6-7	7	5	5
Sunlight	7	7	5-6	5
PERSPIRATION				
Acid	shade change	4-5	4-5	5
	staining	5	5	5
Alkaline	shade change	4	4-5	4-5
	staining	5	4-5	5
WASHING				
Mill Test #1 AATCC	shade change	4-5		5
	staining wool	5		5
AATCC #2 @ 120°F	shade change		5	5
	staining nylon		5	4-5
AATCC #3 @ 160°F	shade change		5	4-5
A/T Tannic Acid	staining nylon		5	5
FULLING AATCC #2	shade change	4	4-5	4
1½ hrs. @ 100°F	staining	4-5	4-5	5
SEA WATER	shade change	5		5
DRY CLEANING	shade change	5		5
CROCKING	Wet	4-5		4-5
	Dry	5		5



dyestuff makers since 1859

MODERN TEXTILES MAGAZINE

TABLES

of

DENIER NUMBERS

and FILAMENT COUNTS

of

**U. S. Man-Made
Yarns and Fibers**

1959

an annual compilation

prepared by

H. George Janner
MANAGING EDITOR

Reprints of these tables are available at nominal cost by writing
MODERN TEXTILES MAGAZINE, 303 Fifth Ave., New York 16, N. Y.

NOTES TO TABLES

Cellulosic Yarns

Rayon

AMERICAN ENKA CORP. has added a 300 den. 120 fil. yarn which comes in bright. (Table 1) Their Staple range has been augmented by the addition of 6.5, 8 and 15 den. yarns in bright (Table 4.) In the Intermediate & High-Tenacity Yarns they have added a 1230 den. yarn with 480 and 720 fil. and a 2200/1440 yarn (Table 2).

AMERICAN VISCOSA CORP. discontinued its 60/10, and 300/59 and 900/60 yarns (Table 1) In the High-Tenacity or tire yarns they added 1100/980 and 1650/1500 Tyrex Viscose Yarn; also 3300/300 Super Rayflex (Table 2.)

COURTAULDS (ALABAMA) INC. has added two cross-linked fibers, Corval and Topel to their range of staple fibers. They have also added a new 5.5 den. staple to their regular staple fiber line (Table 4).

E. I. DU PONT DE NEMOURS & Co. is offering two new products, Ondule a random snubbed yarn and Civona, a hollow filament fashion yarn. They have eliminated the 450 and 700 den. 7-77 rayon yarn (Table 1.) They also added a 1600/960 super cordura yarn to their High-Tenacity range (Table 2).

HARTFORD RAYON Co. has changed its name to Hartford Fibres Co. (Table 4)

INDUSTRIAL RAYON CORP. is now offering the two monofilaments under the name "Strawn" instead of "Tioronal" (Table 1). They discontinued the 100/40 yarn.

Acetate

AMERICAN VISCOSA CORP. has introduced a new cross-section—Fiber 25—with a different filament count: 75 den. 18 fil. and 150 den. 36 fil. The new yarn is said to have about 20% more bulk than regular yarns. They have also added Colorsprun in 150/41 and Avisco regular yarns 40/11, 45/14 and 240/80.

CELANESE CORP. added two new yarns to its Fortisan line (Table 2).

DU PONT added a 40/13 yarn, also a 100/22 thick & thin type C yarn. They discontinued the 300/40-80, 1800/140 and 2700/210 types. (Table 1).

EASTMAN CHEMICAL PRODUCTS Co. discontinued the following types 40/11, 200/104, Estron, and 900/45-45 Estron and added 120/49 Estron and 200/59 Chromspun. (Table 1)

Triacetate

CELANESE CORP. is now offering Arnel in tow form (Table 5).

Non-Cellulosic Yarns

Acrilan

CHEMSTRAND CORP. is offering its staple and tow now also in Acrilan 16 (Tables 4 & 5)

Creslan

AMERICAN CYANAMID informs us that initial marketing of its modacrylic fiber in woven goods started early this year, with expanded programs being planned for fall. (Tables 4 & 5)

Dacron

DU PONT eliminated 1100/250 and added the following yarns: 30/10, 40/13, 140/28, 200/20 and 260/17 (Table 3)

Darvan

B. F. GOODRICH states that they have developed a more dyeable version of their nitrile fiber, called Type X-7. (Table 4)

Dynel

UNION CARBIDE informs us that they are producing their modacrylic staple fiber in natural and dope-dyed colors. (Table 4)

Nylon

ALLIED CHEMICAL discontinued its 560/32 and added a 1050/56 yarn. (Table 3)

AMERICAN ENKA has eliminated its 10 and 12 den. yarns and added a 20/6 yarn. In addition, they are also producing 260/16, 260/34 and 520/32 normal tenacity yarns in bright. (Table 3). In the Staple range they discontinued their 15 den. dull luster staple. (Table 4).

BOLTA PRODUCTS Div. has discontinued the production of nylon monofilament yarns. (Table 3)

CHEMSTRAND augmented its line by adding 200/68, 400/68, 720/140, 800/140, 1050/170 and 2080/136 yarns. These yarns may now also be had in high-bright. (Table 3)

DU PONT has discontinued its 21 den. and its 90/44 yarns and has added the following regular types: 20/1, 20/2, 40/10, 60/34, 110/50, 630/102. They also augmented their black color-sealed line by 30/10, 40/13, 100/34, and 200/20 yarns.

SOUTHERN LUS-TRUS has taken up production of nylon monofilaments. (Table 3)

Orlon

Polyethylene & Polypropylene

BOLTA PRODUCTS is now producing polypropylene yarns in the same gauges as their polyethylene (Table 3) DAWBARN BROTHERS has discontinued its 150 den. polyethylene and polypropylene yarns.

FIRESTONE PLASTICS Co. informs us that they are now also producing polypropylene yarns in round and oval.

INDUSTRIAL PLASTICS Co. is listed for the first time as producer. Their Propylene monofilament yarn is marketed under the trade name Tuff-Lite Pro-Fax and is said to combine great strength with exceptional lightness. It is available in a wide range of colors.

REEVES BROTHERS has added Reevon Polypropylene flat and Multifilament in round and flat.

SOUTHERN LUS-TRUS reports that they are now producing polyethylene and polypropylene filaments in the weaving yarn sizes exactly the same as their Saran.

U. S. RUBBER is also producing a range of polyethylene and polypropylene yarns in round and flat. The yarns are marketed under the tradename "U. S. Royalene". (For yarn types produced see bottom of Table 5.)

Orlon

Note changes and additions in Table 4 and 5.

Rovana

Dow CHEMICAL has announced selective marketing of its new vinylidene chloride tape filament. The new fiber is said to have high cover, high tear strength and is readily embossable. It is available in 9 standard colors and in natural. (Table 3)

Saran

The listing of the Saran Yarns Co. production is now combined with that of The National Plastic Products Co., since all marketing is now being done by this company. (Table 3)

Verel

EASTMAN PRODUCTS is now offering this acrylic fiber as staple only in regular (stabilized) and Type III (high-shrink) forms. Their No. 110 has been discontinued. (Table 4)

Vynon

AMERICAN VISCOSA added a 3 den. 1/2 in. staple yarn. (Table 4)

Vycron

BEAUNIT MILLS INC., Fibers Div. now offers Vycron polyester fiber in staple form for all spinning systems and as tow for direct spinners and converters. The fiber has a tensile strength of 5.6 gr./den. and a breaking elongation of 35%. It can be blended with all fibers and is said to have a high pilling resistance. (Table 4)

Glass Fibers

OWENS-CORNING has recently added Coro Dyed Yarn to its line of Fiberglas yarns. This is a texturized bulky yarn which is single end dyed with high temperature inorganic pigment. The new yarn is coronizable and is available in a variety of colors. (Table 3)

JOHNS-MANVILLE appears as a new name among the producers, having acquired the L.O.F. Glass Fibers Co. No changes were reported in the production. (Table 3)

Metallic Yarns

This Table shows an additional producer, Multi-Tex Products Corp. (Table 5).

TABLE I

RAYON and AC

TABLE 2. INTERMEDIATE- AND HIGH-TENACITY POLY(1,3-PHENYLENE TEREPHTHALATE).

DENIERS	30	40	50	60	90	120	150	270	300	400	450	600	900	1100	1150	1170
Am. Enka	—	—	—	—	—	—	—	—	120	—	—	—	120	720	480	—
	—	—	—	—	—	—	—	—	40	—	—	80	120	—	—	—
Am. Viscose	—	—	—	—	—	—	—	—	—	—	—	—	—	980	490	—
	—	—	—	—	—	—	—	—	60	—	120	—	120	350	—	980
Beaunit Mills Coosa Pines Div.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	720	—
Celanese Corp. of Am.	40	—	—	—	80	120	160	180	360	360	280	400	—	—	—	—
Du Pont	—	20	20-35	—	—	—	—	60	—	120	—	180	240	—	720	—
Ind. Rayon	—	—	—	—	—	—	—	—	40	—	80	—	—	480	720	430
No. Am. Rayon	—	—	—	—	—	—	—	—	—	—	—	—	—	720	—	—

C E T A T E Y A R N S

CITY and TIRE CORD YARNS

1165	1200	1230	1250	1530	1600	1650	1725	1780	1800	2200	2400	3300	4400	Types
480	480	480	480	480	480	1100 720	480	480	480	960	480	480	480	Tyrex Viscose Yarn Tempra Jetspun
980	980	980	980	980	980	1500 980	980	980	980	980	980	980	980	Tyrex Viscose Yarn Avisco Tire Rayflex Super Rayflex
720 1100	720 1100	720 1100	720 1100	720 1100	720 1100	720 1100	720 1100	720 1100	720 1100	720 1100	720 1100	720 1100	720 1100	Tyrex Viscose Yarn
480	720	960	960	1100	1100	1100	1100	1100	1100	1440	1440	1440	1440	Acetate: Fortisan Fortisan-36
720	720	720	720	720	720	1100 720	1000 2000	1000 2000	1000 2000	1440	1440	1440	1440	Super Cordura Cordura
720 1100	720 1100	720 1100	720 1100	720 1100	720 1100	720 1100	720 1100	720 1100	720 1100	720 1100	720 1100	720 1100	720 1100	Tyrex Viscose Yarn Tyron 200
720 1100	720 1100	720 1100	720 1100	720 1100	720 1100	720 1100	720 1100	720 1100	720 1100	720 1100	720 1100	720 1100	720 1100	Tyrex Viscose Yarn

TABLE 3

NON-CELLULOSE

TABLE 4

Cellulosic

*15% over regular strength; all others listed, regular strength.

• 30% stronger dry, 50% stronger wet

• 30% stronger dry, 50% stronger wet.

STAPLE

Deniers	Length in inches	Luster
Acrilan Acrylic Fiber—THE CHEMSTRAND CO.		
2.0		
2.5 hi-bulk		
3.0	1-9/16 to 5	bright or semi-
5.0		
8.0		
15.0		
The above types of staple fiber also available		
Acrilan is also produced as Fiberfill.		
Creslan Acrylic Fiber—AMERICAN CYANAMID		
2.0		
3.0	1 1/2 to 4 1/2	bright & semi-
5.0		
15.0		
Dacron Polyester Fiber—DU PONT		
1.25		
1.50	1 1/4, 1 1/2, 2, 2 1/2 & 3	
3.00		
4.50	1 1/4, 1 1/2, 2, 2 1/2, 3 & 4 1/2	semi-dull
6.0		
Fiberfill		
Type 61	Industrial staple—45% shrinkage—3.0 and 6.0 deniers	
Type 64	Pill resistant, more dyeable staple primarily for suitings	
Darvan Nytril Fiber—B. F. GOODRICH CHEMICAL		
1.5		
2.0		
3.0	1 1/2 to 4 1/2	bright or semi-
4.5		
6.0		
8.0		
Dynel Modacrylic Fiber—UNION CARBIDE CHEMICALS		
2.0		
3.0		
6.0	any length from 1 1/4-5	semi-bright
12.0		
24.0		
Produced in natural and dope-dyed colors		

SIC YARNS

PLE Non-Cellulosic

TABLE 5

TOW

Filament Denier	Number of Filaments	Total Denier	Filament Denier	Number of Filaments	Total Denier
Cellulosic					
Acetate					
CELANESE CORPORATION OF AMERICA					
2.0		89,000	1.5	60,000	100,000
3.0		137,000	2.0	45,000	100,000
5.5		139,000 Dull	3.0	30,000	100,000
5.5		198,000 Bright	4.5	20,000	100,000
8.0		234,000			
17.0		326,000			
50.0		240,000			
Bright and dull, crimped and uncrimped.					
Triacetate Fiber Arnel					
CELANESE CORPORATION OF AMERICA					
2.5		114,000			
5.0		180,000			
Rayon					
AMERICAN VISCOS					
1.5					
3.0		bright & dull			
5.5					
9.0		bright			
CELANESE CORPORATION OF AMERICA					
1.5		200,000			
3.0		200,000			
5.5		200,000			
8.0		207,000			
Bright and dull, crimped and uncrimped.					
NORTH AMERICAN RAYON CORP.					
2200 den. 2000 fil. and 4400 den. 2934 fil.					
Bright and super high tenacity.					
Non-Cellulosic					
Acrilan Acrylic Fiber					
THE CHEMSTRAND CORP.					
2.0		240,000			
2.5 Hi-Bulk		300,000			
3.0		360,000			
5.0		600,000			
8.0		360,000			
15.0		450,000			
Semi-dull.					
All deniers except 15.0 den. also available in Acrilan 16 in semi-dull.					
Creslan Acrylic Fiber					
AMERICAN CYANAMID CO.					
2.0					
3.0		bright or semi-dull, crimped			
5.0					
15.0					
Dacron Polyester Fiber					
DU PONT					
1.5		366,666			
3.0		150,000			
4.5		100,000			
6.0		75,000			
Semi-dull.					
550,000					
all					
450,000					

**Range of polyethylene and polypropylene yarns
produced by U. S. Rubber Co. under the name "U. S. Royalene".**

Deniers	POLYETHYLENE TYPE A		POLYPROPYLENE TYPE P		POLYETHYLENE TYPE A		POLYPROPYLENE TYPE P	
	Size	Shape	Deniers	Size	Shape	Deniers	Size	Shape
65			.004	round		590	.012	round
140			.006	round		590	.007x.018	flat
145				round		600	.012	round
150	.006			round		600	.007x.018	flat
250			.008	round		875	.004x.040	Tape
265				round		1000	.003x.055	Ribbon folded
270			.008	round		1100		Plurofilament— 15 ends
420				round				flat
435			.010	round		1400		flat
450	.010			round		1470	.009x.030	flat
560				round		1480	.009x.030	flat
560			.012	flat		1500	.0045x.055	flat
560			.007x.018	Plurofilament— 4 ends		1640		Ribbon folded
						1730	.020	round
						1750	.020	round

TABLE 6

Producer	Types	Yarn Sizes
DOW CHEMICAL CO.	LUREX (Butyrate) LUREX MM LUREX MF LUREX MM-CR (caustic resistant)	1/16" to 1/128" supported or unsupported and in all types of put-ups.
FAIRTEX CORP.	FAIRTEX Type 206 (Butyrate) FAIRTEX with Mylar* Metalized 100V and 150V FAIRTEX with Mylar 150F Foil	1/16" to 1/28" either supported or unsupported on cones, spools or tubes. Also in staple form.
MALINA CO.	MALORA (Butyrate) MALORA with Mylar (Metalized) MALORA with Mylar (Foil) Metallic Cellophane Yarn	1/16" to 1/100" either supported or unsupported in all put-ups.
METAL FILM CO.	CHROMEFLX NL CHROMEFLX MF CHROMEFLX MM	1/64" yielding from 52,000 yards per lb. 1/16"-1/100" 1/16"-1/100"
METLON CORP.	METLON No. 400 (cellophane-based) METLON-B (Butyrate type) METLON-F with Mylar METLON H.T. Mylar	1/50" and up 1/120" to 1/16" 1/120" to 1/16" Same as above.
METLON ULTRAVAT MYLAR		Same as above.
METLON-V MYLAR		Same as above.
1) Any of the above are available in Staple or Wink form. 2) Crystal Mist, a translucent semi-iridescent Mylar based		
MULTI-TEX PRODUCTS CORP.	DURASTRAN (Foil/Mylar) ALISTRAN (Cellophane/Foil) Butyrate NON-METALLIC	1/64" to 1/4" 1/100" to 1/4" 1/64" to 1/4" 1/64" to 1/4"
REYNOLDS METALS CO.	REYMET	1/8" to 1/80" continuous filament, supported or unsupported on no charge returnable plastic spools. Metallic staple in 30 denier—plain foil, 40 denier—metalized Mylar, 70 denier—foil Mylar. Staple available in any length from 1/2" to 14", crimped or plain and widths down to 1/220".
STANDARD YARN MILLS, INC.	LAME	1/16" to 1/120", also in wider width. Available in staple and flock form.
	LAME with Mylar (Foil)	1/16" to 1/128"
	LAME with Mylar (Metalized)	Same as above. All yarns available either unsupported or supported

* Du Pont's polyester film.

YARNS

Construction	Colors
Laminated with aluminum foil. Laminated metalized Mylar film. Aluminum foil laminated both sides with Mylar film. Modified MM.	Gold and silver and wide range of other colors.
Laminated with aluminum foil. Laminated with Mylar Polyester film. Same as above.	Gold and silver and range of 12 other colors.
Aluminum foil laminate. Metalized Mylar with clear Mylar. Clear Mylar with aluminum foil. Laminate of clear cellophane film to aluminum foil.	Gold and silver. Other colors supplied on special orders.
52- Non-laminated Mylar. Foil laminated with Mylar. Metalized Mylar laminated with clear Mylar.	Gold, silver and dyeable yarns. Other colors on request. Yarns are also available in silver with special dyeing characteristics.
Aluminum foil laminated between two plies of viscose film. Aluminum foil between two plies of cellulose/acetate-butylate. Laminate of aluminum foil with Mylar on each side. Foil laminated with special high tenacity Mylar film. Foil laminated with Mylar by special process for extreme sunlight, Fadeometer, and wet processing resistance. Metalized Mylar laminated with one or more plies of metalized or clear Mylar. Yarn available in standard sizes as noted.	Gold and silver, other colors as required. Same as No. 400 Same as above. Gold and silver only. Gold and silver only; other colors on special order. Gold and silver only.
Laminate of aluminum foil and Mylar. Laminate of aluminum foil and cellophane. Laminate of aluminum foil and butyrate. Film types (Mylar, cellophane).	Gold, silver, and full range of colors as well as duet and varigated. Gold, silver, and full range of colors (24) as well as duet and varigated. Gold and silver. All transparent and opaque colors.
Laminate of bright aluminum foil with 2 plies of Mylar or metalized Mylar. Also acetate-butyrate.	Gold and silver and wide range of solid colors and multi-colors. Special colors on request.
Aluminum foil laminated between two plastic films. Aluminum foil laminated between two films of Mylar. Mylar film laminated to metalized Mylar film on either one or both sides.	Gold and silver and wide range of other colors. Same as above. Same as above.

YARN PRODUCERS SALES OFFICES

Allied Chemical Corp. Fiber Sales & Service 261 Madison Ave. New York 16, N. Y.	Eastman Chemical Products, Inc. 260 Madison Ave. New York 16, N. Y.	New Bedford Rayon Division Mohasco Industries, Inc. New Bedford, Mass.
American Bemberg, Beaunit Div. 261 Fifth Ave. New York 16, N. Y.	Fair Haven Mills, Inc. Fair Haven, Vt.	North American Fibers Corp. 261 Fifth Ave. New York 16, N. Y.
American Cyanamid Co. Fibers Division 111 West 40th St. New York 18, N. Y.	Fairtex Corp. 1808 Liberty Life Bldg. Charlotte 2, N. C.	Owens-Corning Fiberglas Corp. Textile Products 717 Fifth Ave. New York 22, N. Y.
American Enka Corp. 530 Fifth Ave. New York 36, N. Y.	Firestone Plastics Co. A Division of Firestone Tire & Rubber Co. 45 Rockefeller Plaza New York 20, N. Y.	Pittsburgh Plate Glass Co. Fiber Glass Division One Gateway Center Pittsburgh 22, Pa.
American Viscose Corp. Fibers Division 350 Fifth Ave. New York 1, N. Y.	B. F. Goodrich Chemical Co. A Division of The B. F. Goodrich Co. 3135 Euclid Ave. Cleveland 15, Ohio	Poliafil, Inc. 311 Palm St. Scranton 5, Pa.
Beaunit Mills, Inc. Coosa Pines Div. 261 Fifth Ave. New York 16, N. Y.	Hartford Fibres Co. A Division of Bigelow-Sanford Carpet Co. Inc. 140 Madison Ave. New York 16, N. Y.	Polymers, Inc. Middlebury, Vt.
Bolta Products Division General Tire & Rubber Co. 70 Garden St. Lawrence, Mass.	Industrial Plastic Co. 216 Tingley Lane Metuchen, N. J.	Polyarns Inc. 545 No. Main St. Canandaigua, N. Y.
The Carborundum Co. Buffalo Ave. Niagara Falls, N. Y.	Industrial Rayon Corp. 500 Fifth Ave. New York 36, N. Y.	Reeves Brothers, Inc. 1071 Ave. of the Americas New York 18, N. Y.
Celanese Corporation of America 180 Madison Ave. New York 16, N. Y.	Johns-Manville 22 East 40th St. New York 16, N. Y.	Reynolds Metals Co. 6601 W. Broad St. Richmond 18, Va.
The Chemstrand Corporation 350 Fifth Ave. New York 1, N. Y.	Molina Company 125 West 41 St. New York 36, N. Y.	Schenandoa Rayon Corp. 261 Fifth Ave. New York 16, N. Y.
Courtaulds (Alabama) Inc. 600 Fifth Ave. New York 20, N. Y.	Metal Film Co., Inc. 40 Worth St. New York 13, N. Y.	Southern Lus-Trus Corp. 1048 Escambia St. Jacksonville 6, Fla.
Dawbarn Bros., Inc. Waynesboro, Va.	Melton Corporation Div. of Acme Backing Corp. 432 Fourth Ave. New York 16, N. Y.	Standard Yarn Mills, Inc. 62-05 30th Ave. Woodside 77, N. Y.
The Dow Chemical Co. Textile Fibers Department Williamsburg, Va.	Modiglass Fibers, Inc. Nicolet Ave. Florham Park, N. J.	Union Carbide Chemicals Co. A Division of Union Carbide Corp. Textile Fibers Department 100 East 42nd St. New York 17, N. Y.
E. I. du Pont de Nemours & Co., Inc. Textile Fibers Dept. Wilmington 98, Del.	Multi-Tex Products Corp. 56 Elm St. Newark 5, N. J.	United States Rubber Co. Footwear & Gen. Products Div. 1230 Ave. of the Americas New York 20, N. Y.
The National Plastics Products Co. Odenton, Md.		





SPECIFICATIONS FOR YOUR PERMANENT FILE

VYCRON

Specifications

FIBER STRUCTURE:

Vycron is a polyester fiber differing from other polyesters in its total chemical constitution and its basic structure. Its structure is designed to give better dyeing properties along with good fiber processing and wearing characteristics.

FIBER PROPERTIES:

	Vycron Staple Fiber
Tensile Strength	5.6 g/d
Break Elongation	35%
Modulus of Elasticity	0.5 g/d/%
Resilience as measured by work recovery	
from 2% extension	93
from 5% extension	44
from 10% extension	33
Toughness	1.75 gm. cm./cm. den.
Moisture Absorption	0.6%
Specific Gravity	1.36

HEAT RESISTANCE:

The heat resistance of Vycron Fiber is good. Melting point is 455°F. Fabrics of Vycron may be ironed safely at temperatures as high as 350°F.

RESISTANCE TO CHEMICALS:

Vycron has good resistance to common solvents and cleaning agents. It is not affected by acids or alkalis normally encountered by apparel fabrics.

RESISTANCE TO WEATHERING:

Good.

FLAMMABILITY:

Vycron will burn slowly but melts and drops off when hanging free.

MILL PROCESSING:

Vycron Fiber can be processed excellently on standard spinning systems. The Fiber has extremely good fiber to fiber cohesion and is exceptionally strong. Yarns spun from it are stronger than yarns spun from other polyesters. Even fine counts perform excellently because of the extra strength and evenness.

DYEABILITY:

The affinity and dyeing rate of Vycron for disperible acetate colors and developed azoics is slightly greater than for some of the competitive polyesters. When selected dyes are properly applied, good fastness is achieved. Laboratory tests confirmed by commercial runs evidence excellent colorfastness to laundering, hot pressing, hot wet pressing, sublimation, perspiration, gas fading, solvent rubbing, light, and crocking wet and dry.

DIMENSIONAL STABILITY:

To produce a fabric with good dimensional stability, heat setting is necessary. In fabrics where the blend contains a high percentage of rayon or cotton, thermosetting resins or compressive shinkings may be necessary.

Heat setting temperatures and equipment suitable vary, depending on the particular fabric. Generally we recommend somewhat lower heat setting temperatures than for other polyesters. A maximum of 365° for 45 seconds has been found adequate.

WASH & WEAR PERFORMANCE:

Vycron fabrics and fabrics made with proper blends of other fibers show remarkable wrinkle resistance and crease retention after wash and wear tests.

PILLING:

Vycron has outstanding resistance to pilling. Even though its strength is high, its basic physical structure is such that pilling does not normally occur.

BLEND LEVELS:

Blends are permitted with Cotton or other synthetics as long as the minimum Vycron is 50% of the total blend.

VYCRON POLYESTER FIBER is now being produced in the following forms:

STAPLE in 1½ and 3 denier, for apparel and industrial fabrics.

SPECIAL PROCESS YARNS Vycron filament yarn, combined with other yarns such as Bemberg® or viscose rayons, for unusual surface interest in apparel and decorative fabrics.

TOW for Pacific Converters in 1½ and 3 denier for apparel and industrial fabrics.

TOW for Direct Spinners . . . to be spun into yarns for blouses, skirts, underwear, dresses, suits, shirts, rainwear and industrial fabrics.

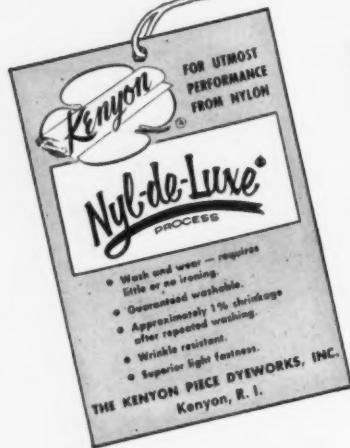
CONTINUOUS FILAMENT YARNS 420 denier and greater, in 1½ and 3 denier per filament.

VYCRON is America's only polyester fiber tested, quality-controlled, and certified under a regular program by the U. S. Testing Company.

BEA UNIT MILLS, Inc.
Fibers Division

261 Fifth Avenue, New York 16, N. Y.

Kenyon
FINISHES
IDENTIFY
Superior
FABRICS



**On Your Garment or Product the Kenyon Mark
creates a MERCHANDISING PLUS**

**There is No Substitute
for Kenyon Finishing!**





Procedure Outlined for Labeling Act Guarantees

A PROCEDURE by which textile distributors may comply in an orderly fashion with the requirements imposed on them by the new Textile Fiber Products Identification Act was recommended last month by the Textile Distributors Institute.

A bulletin issued by the TDI made the following recommendations in regard to requests made by garment manufacturers and retailers that fiber content information and guarantees required by the act be furnished as promptly as possible:

"Although the law does not become effective until March 3, 1960, it is recognized that fabrics which you are presently delivering or which are under contract for future delivery, may not be made up into garments or the garments themselves will not be delivered to retailers until after March 3, 1960.

"Also, some garments manufactured and delivered prior to that date may be in the retail store thereafter. In order that as much merchandise as possible in the retail stores after March 3, 1960 will bear the required labeling, fiber content information and guarantees should be furnished to your customers as promptly as possible.

"In order to be in a position to give the required information to your customers, you will need the following:

(a) The percentage of total fiber weight of each fiber contained in the fabrics you are selling.

(b) A guaranty from your mill that the fiber content information conforms to the requirements of the law, or a letter from your mill advising you that they have filed or intend to file a continuing guaranty with FTC, as provided for in Rule 38 of the Rules and Regulations under the Act.

(c) If the gray goods are imported, the name of the country where manufactured.

"Insofar as fiber content information is concerned, the FTC has interpreted the law to permit you as the converter where you are processing or finishing gray goods by customary processes which are not deliberately intended to change the fiber content of the gray goods as given to you by your mill, it will not be necessary that you make a further test for fiber content after finishing.

"The law also provides that where you rely on the fiber content furnished by the mill, you will not be guilty of misbranding if you have received the guaranty of fiber content from the mill or if the mill has filed a continuing guaranty with FTC. Such guarantees are special forms provided for under the law. Although the furnishing or filing of guarantees is not made mandatory by the law, it is anticipated as a matter of practice that all vendors will furnish guarantees to their customers.

"The law further provides that a converter relying on a mill guaranty may issue his own guaranty to his customers based on the mill guaranty so that it will

not be necessary for the converter to make an independent test of the fiber content.

"In order that you may be in a position to furnish both fiber content information and a guaranty, the following procedure is suggested:

1. Prepare a separate schedule for each of your mills, listing the style numbers of all fabrics presently in your inventory, as well as fabrics about which you have received specific request for information from your customers. You should then write to your mills enclosing a copy of the schedule and request that they furnish you in writing with the fiber content information of each of these fabrics together with a separate guaranty.

2. Prepare a separate schedule for each of your mills for all fabrics now on order for future delivery for which you have not received fiber content information in writing. You should then communicate with these mills enclosing a copy of the schedule and request that they either furnish you with fiber content information by separate letter or give you assurance that this information will appear on invoices covering delivery of these fabrics. The letter should also request either that the mill furnish you with a separate continuing guaranty covering all fabrics to be delivered or to confirm to you that a continuing guaranty has been filed with FTC.

3. Upon receipt of fiber content information and either a separate guaranty or confirmation that a continuing guaranty has been filed, you are then in a position to furnish the fiber content information and your guaranty to your customers. In order to facilitate record keeping, it is recommended you use the continuing guaranty form to be filed with the Federal Trade Commission. The form must be signed and acknowledged before a notary public in duplicate. The two executed copies should be mailed to the Federal Trade Commission, Washington 25, D. C. The third copy is for your records. Thereafter it will only be necessary that you place a stamp on your contract or invoice reading as follows:

Continuing Guaranty Under the Textile Fiber Products Identification Act Filed with the Federal Trade Commission

"On new printing of invoices and contracts you may wish to use the combined stamp guaranty under the Flammable Fabrics Act and the Law, reading as follows:

Continuing Guaranty Under the Flammable Fabrics Act and the Textile Fiber Products Identification Act filed with the Federal Trade Commission.

The filed guaranty will remain in effect indefinitely.

(Continued on Page 113)

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New from Nopco is Nopcotex AR-35, designed primarily for economical and efficient finishing of sweaters and knitted goods made from acrylic fibers and toweling where softness and water absorbency are the major requirements. Nopcotex AR-35 is also recommended as the softener component in resin finishing formulations.

*Write for samples and
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**Nopcotex AR-35 offers
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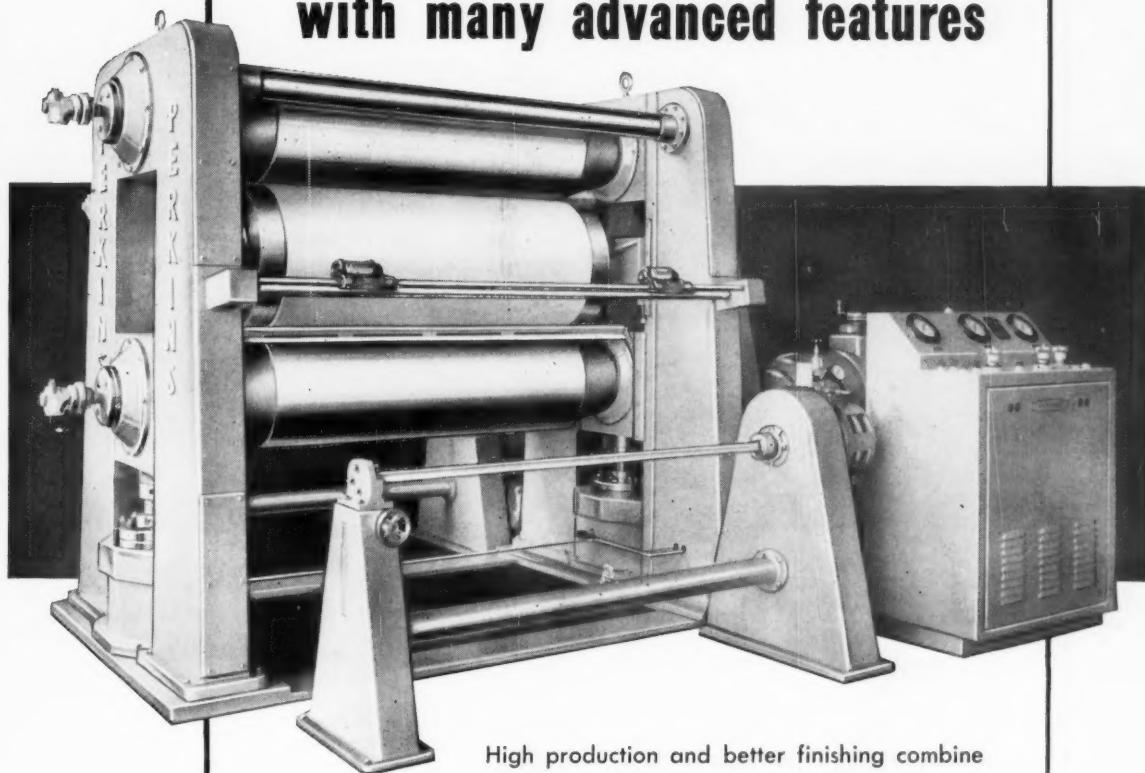
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...better drape and wrinkle recovery
...no water repellent effect
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...compatibility with selected fluorescent dyes as well as corn starches, starch ethers, polyvinyl alcohol, polyvinyl acetate, and most thermosetting resins
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...will not turn rancid in storage or develop an undesirable odor...will remain free of discoloration

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TEXTILE

— NEWS BRIEFS

ASQC Textile Division

The Textile Division of the American Society for Quality Control elected four new officers, at its recent annual meeting in Cleveland, Ohio, to serve until mid-1960. Elected were: chairman, R. G. Mitchell, director of Quality Control, International Latex Corp.; chairman-elect, R. E. Heiland, industrial engineer, Kurt-Salmon Associates; secretary, W. S. McMann, assistant director, Quality Control, Dan River Mills, Inc., and treasurer, C. D. Ferris, Mohawk Carpet Mills, Inc. ASQC will hold its 1960 annual convention in San Francisco, Calif.

Bobbin Holder Sold

James Hunter Machine Co., effective June 1, sold the manufacturing rights for the Hunter bobbin holder to A. E. Winslow, operating as Whitehorse Farms, Greenville, S. C. Hunter for two years has had the exclusive manufacturing and sales rights to the holder, which was developed, designed and patented by Winslow. The holder will be manufactured at the Greenville facility. Hunter will continue as non-exclusive sales agent for the holder.

Saare Medal Awarded

Dr. Thomas J. Schoch, supervisor of basic starch chemistry at the Corn Products Co.'s George M. Moffett Research Laboratories in Argo, Ill., has been awarded the Saare Medal for his pioneering research work in the field of starch and starch fractions. Mr. L. Altrogge, president of the Association of Cereal Research, presented the medal during the 1959 Starch Congress in Detmold, Germany. The medal, named in honor of Professor Doctor Oskar Saare, founder of modern starch research in Germany, is awarded annually.

New Winder-Slitter Lab

Appleton Machine Co. has established a new research laboratory, designed to solve other companies' slitting and winding problems. The new facility will be used to test paper, textiles, leathers, synthetic fabrics, plastics and other materials, and to develop improved methods of slitting and winding. The lab has equipment capable of slitting material into rolls from one-eighth inch up to 60 inches wide. The new service is offered without charge. For further information about the laboratory service, write the editors.

New Scott Sales Plan

Scott Testers, Inc., has established a new sales program making its equipment available on five-year installment purchase or rental purchase plans. Details of the new merchandising program were developed with C.I.T. Corp. Scott Testers' equipment, ranging in price from \$1,000 to \$15,000, is used for evaluating tensile strength of textiles, wire, rubber, plastics, and other products. *For further information write the editors.*

Machinery Installment Sales

Standard Financial Corp., New York City, has set up a program which enables textile equipment manufacturers to sell their income-producing equipment on an installment plan. Standard's plan provides complete financing with the financing company handling all customer credit, collection and paper work at no extra charge. Equipment purchasers are required to make only a down payment of 15% in cash or trade, with the balance payable in 1 to 5 years. *For further information write the editors.*

Sets Carpet Standards

Good Housekeeping magazine has set up standards for rugs and carpets in an effort to reduce consumer "confusion." The standards, the first complete consumer guides ever widely published for carpets, will be used as a basis for the acceptance of carpets, under the magazine's Guarantee Seal program. The standards cover construction, serviceability and cleanability. *For further information write the editors.*

Reeves Reactivates Mill

The Grace Cotton Mill of Reeves Brothers, Inc., at Rutherfordton, N. C., will be reactivated for the production of vinyl coated "Cover-light" materials. In addition, developments in other areas of special plastic coatings are planned for a later date. D. E. Sherrill, general manager of Reeves' Vulcan Rubber Products Division plant at Buena Vista, Va., will also hold that position at the Grace facility.

Caprolactam Booklet

A new, revised and enlarged Caprolactam technical bulletin has been prepared by National Aniline Division of Allied Chemical. The division produces Caprolactam monomer which is utilized in the preparation of nylon 6 for textile fibers, tire cord, film, plastics and resins. Technical bulletin I-14R describes the physical and chemical properties of Caprolactam and discusses its various applications. *For copies write the editors.*

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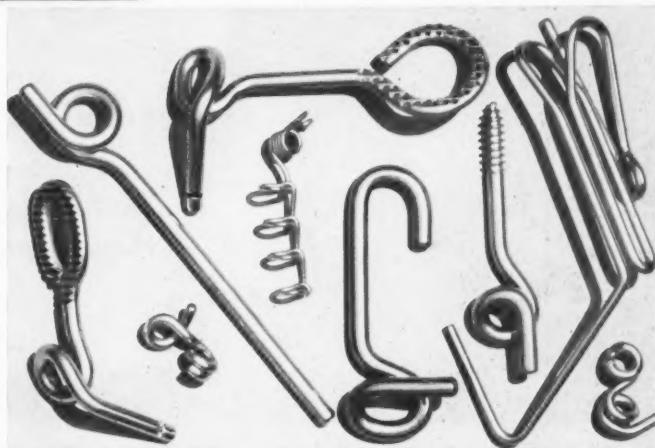
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R. W. KixMiller



J. W. Brooks



Fred Luss

New Celanese Divisions

Celanese Corp. of America has organized three new companies to administer the manufacture and marketing of its fiber, chemical and plastics products. The companies—Celanese Fibers Co., Celanese Chemical Co. and Celanese Plastics Co., will function as operating divisions of the parent firm and succeed the former Celanese fibers, plastics and chemical divisions. John W. Brooks was appointed president of Celanese Fibers and Richard W. KixMiller was named president of Celanese Chemicals and also of Celanese Plastics. Both men are vice presidents of Celanese Corp., with Mr. KixMiller also serving as a director.

To evaluate potential new marketing areas and expansion opportunities, the Celanese Development Co. has been established with Fred Luss as president. Celanese Development will provide continuing market and economic studies and contacts relative to the extension and development of the business of the parent company and its foreign affiliates.

Celanese Corp. has acquired a plant in Asheville, N. C., for the development and eventual production of high energy chemical fuels for rocket and missile propulsion systems. The plant will be owned and operated by Amcel Propulsion, Inc. in which Cel-

anese will have a controlling interest. It is being acquired from Oerlikon Corp., Zurich, Switzerland, rocket and missile producers.

Bissinger's Duties Enlarged

Fredrick L. Bissinger has been elected to the newly created post of vice president and general manager of Industrial Rayon Corp., according to an announcement by Hayden B. Kline, president. Bissinger previously was group vice president in charge of the company's marketing and research divisions. In his new position, his responsibilities will be enlarged to cover all phases of the company's operations.

Bissinger joined Industrial Rayon as its patent counsel in 1942. He became corporate secretary in 1945 and was elected vice-president in charge of research in 1948. He was elevated to group vice-president in 1957. During his direction of research activities, the company entered into the manufacture of nylon staple fiber and carried out the program of research which led to its manufacture of Tyrex viscose tire cord.

Bissinger received a degree in mechanical engineering and a master's degree in chemistry from Stevens Institute of Technology. He is a graduate of Fordham University from which he obtained his degree in law, and, a member of the bar in New York, Ohio and the District of Columbia.



F. L. Bissinger



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U. S. MAN-MADE FIBER PRICES

This schedule lists the prices of yarns, staple and tow as reported by the producers in August 1959. All prices are given as subject to change without notice.

CELLULOSIC YARNS ACETATE

American Viscose Corp.

Current Prices

Effective March 13, 1959

Bright and Dull

* Intermediate Twist

Denier & Filaments	Cones & 4-6 Lb. Tubes	Twister Tubes	Warps	Spinning Cones	Twist Warps
40/13	...	...	...	...	1.03
45/11	...	...	...	...	1.14
55/14	\$.99	\$.97	\$ 1.00	...	.87
75/20	.95	.93	.96	.89	.90
100/28	.91	.89	.92	.85	.86
120/32	.82	.80	.83	.76	.77
150/41	.74	.73	.75	.69	.70
200/54	.70	.69	.71	.66	.67
300/80	.66	.65	.67	.62	.63

* Standard Twist 2¢ Additional.

Terms: Net 30 Days.

Celanese Corp. of America

Current Prices

Effective March 10, 1959

Bright & Dull

Denier and Filaments	Intermediate Twist			Spinning Twist		
	4 & 6-Lb. Cones	4-Pound Beams	Cones Beams Cheeses	Cones	Beams	Twist Tubes
45/13	\$1.12	\$1.13	\$.89	.90	.79	
75/20	.95	.96				
75/50	.97	.98				
100/26-40	.91	.92				
120/40	.82	.83				
150/40	.74	.75	.74	.69	.70	.66
200/52	.70	.71				
300/80	.66	.67				
450/120	.66	.67				
600/160	.65	.66				
900/240	.63	.64				
150 Denier 12-TM Tubes		.73				
2-Pound Cheeses			.01 Less Than 4-Pound Cheeses			
2-BU and 4-BU Tubes			Same Price as 4 and 6-Lb. Cones			

Terms: Net 30 days. Shipments prepaid to any destination in U.S.A.

Prices subject to change without notice.

All previous prices withdrawn.

Prices on unlisted items can be obtained upon request.

Orders are subject to conditions of sale appearing on our acknowledgements of orders.

Celaperm Filament Yarn Prices

Denier and Filaments	Intermediate Twist			Spinning Twist		
	4 & 6-Lb. Cones	Beams	Cones	Beams	Cones	Beams
55/15	\$1.37	\$1.38	\$1.31	\$1.32		
75/20	1.34	1.35	1.28	1.29		
100/26	1.28	1.29	1.22	1.23		
120/40	1.19	1.20	1.13	1.14		
150/40	1.11	1.12	1.06	1.07		
200/52	1.05	1.06	1.01	1.02		
300/80	1.01	1.02	.97	.98		
450/120	.99	1.00	.95	.96		
600/160	.97	.98				
900/240	.94					

Celaperm Black Yarn Prices

Effective March 11, 1955

Denier and Filaments	Intermediate Twist			Spinning Twist		
	4 & 6-Lb. Cones	Beams	Cones	Beams	Cones	Beams
55/15	\$1.17	\$1.18	\$1.11	\$1.12		
75/20	1.14	1.15	1.08	1.09		
100/26	1.08	1.09	1.02	1.03		
120/40	.99	1.00	.93	.94		
150/40	.91	.92	.86	.87		
200/52	.85	.86	.81	.82		
300/80	.81	.82	.77	.78		
450/120	.79	.80	.75	.76		
600/160	.77	.78				
900/240	.74					

3 to 5 Turns on Cones or Beams — \$.02 Additional

Terms: Net 30 days. Transportation prepaid or allowed to any destination in U.S.A.

Prices subject to change without notice.

All previous prices withdrawn.

Prices on unlisted items can be obtained upon request.

Orders are subject to conditions of sale appearing on our acknowledgements of orders.

E. I. du Pont de Nemours & Co.

Textile Fibers Dept.

Denier & Filament	Acetate			Cones	Beams	2 & 4 Lb. Tubs.	Cones
	Zero Twist	Low Twist	Intermediate Twist				
40-13	\$1.06	\$1.13		\$1.12			
45-13	1.03	1.11					
55-18	.925	.985		.99			
55-24	.925	.985		.99			
75-24	.84	.94		.95			
75-50				.97			
100-32	.81	.89		.90			
120-50	.77	.80		.81			
150-40	.69	.72	.72	.73	.77	.77	.78
200-60	.68			.69	.70	.73	.73
240-80				.67			.71
300-80	.63	.65	.65	.66	.69	.69	.70
450-120	.63			.64	.67	.67	.68
600-160						.65	.66
900-240						.63	.64
1800-88						.61	.62
2700-132						.61	.62
3000-210						.61	.62

(A) Regular Twist (2.9 and 5 T.P.I.)—add \$.02 to Intermediate Twist Price.

(B) 1 lb. %" Tubes—add \$.02 to 2 & 4 lb. %" Tube Price.

Color-Sealed

Denier & Filament	Zero Twist			Low Twist			Intermediate Twist		
	Tubes	Beams	Cones	Beams	Cones	Beams	2 Lb. Tw. Tubs.	4 Lb. Tw. Tubs.	Twisted Tubes
55-18	\$1.045	\$1.315	\$1.32	\$1.35	\$1.37	\$1.38			
75-24	1.18	1.28	1.29	1.32	1.34	1.35			
100-32	.94		1.23	1.26	1.28	1.29			
150-40	1.03	1.06	1.07	1.10	1.11	1.12			
200-64	1.00		1.02	1.04	1.05	1.06			
300-80	.95	.97	.98	1.00	1.01	1.01			

(A) Regular Twist—Add \$.02 to Intermediate Twist Price.

(B) 1 lb. %" Tubes—add \$.02 to 2 & 4 lb. %" Tube Price.

Black

Denier & Filament	Zero Twist			Low Twist			Intermediate Twist		
	2 & 4 Lb. Tubs.	4 Lb. Tubs.	%" Lb. Tubs.	2 Lb. Tubs.	4 Lb. Tubs.	%" Lb. Tubs.	Cones	Beams	
55-18	\$1.045	\$1.115	\$1.12	\$1.15	\$1.17	\$1.18			
75-24	.98	1.08	1.09	1.12	1.14	1.15			
100-32	.94			1.03	1.06	1.09			
150-40	.83	.86	.86	.87	.91	.92			
200-60	.80			.81	.85	.86			
300-80	.75	.77	.77	.78	.81	.81			
450-120				.78	.79	.79			
600-160				.74	.77	.77			
900-240, 44				.74	.74	.74			

(A) Regular Twist (2.9 and 5 T.P.I.)—add \$.02 to Int. Twist Price.

(B) 1 lb. %" Tubes—add \$.02 to 2 & 4 lb. %" Tube Price.

Specialty Yarns

Same Price as Regular Yarn

Same Price as Regular Yarn

Thick & Thin

Denier & Filament	Natural			Black			Color-Sealed		
	Cones	Beams	Cones	Beams	Cones	Beams	Cones	Beams	
100-22 Int. Twist	\$1.34	\$1.35	\$1.47	\$1.48	\$1.67	\$1.68			
200-64 Int. Twist	1.05		1.15						
200-64 Reg. Twist	1.08	1.09	1.17	1.21					
100-25	.93	.94	.91	.92	.85	.86			
120/30	.84	.85	.82	.83	.76	.77			
150/38	.76	.77	.74	.75	.69	.70			
200/50	.72	.73	.70	.71	.66	.67			
300/75	.68	.69	.66	.67	.62	.63			
450/114	.68	.69	.66	.67	.62	.63			
600/156	.67	.68	.65	.66	.62	.63			
900/230	.65	.66	.63	.64					

Terms: Net 30 days. Subject to changes without notice.

Domestic Freight Terms are F.O.B. shipping point, freight prepaid our route within the continental limits of the United States, excluding Alaska.

Eastman Chemical Products, Inc.

Tennessee Eastman Co.

Effective March 13, 1959

"Estron"** Yarn, Bright or Dull — White

Denier & Filament	Regular Twist			Intermediate Twist			Low Twist			Zero Twist			Tricot Beams		
	Cones	Beams	Cones	Beams	Cones	Beams	Cones	Beams	Cones	Beams	Cones	Beams	Cones	Beams	
55/13	\$1.01	\$1.02	\$0.99	\$1.00	\$0.93	\$0.94	\$0.82	\$0.87	\$0.86						
75/19	.97	.98	.95	.96	.89	.90									
75/49	.99	1.00	.97	.98											

Current Prices—December 19, 1955

"Chromspun"**—Standard Colors (Except Black)

Denier & Filament	Regular Twist		Intermediate Twist		Low Twist	
	Cones	Beams	Cones	Beams	Cones	Beams
55/13	\$1.39	\$1.40	\$1.37	\$1.38	\$1.31	\$1.32
75/19	1.36	1.37	1.34	1.35	1.28	1.29
100/25	1.30	1.31	1.28	1.29	1.22	1.23
150/38	...	...	1.11	1.12	1.06	1.07
300/75	...	...	1.01	1.02	.97	.98
450/114	...	...	.99	1.00	.95	.96
900/230	...	...	.94	.95	—	—

Current Prices

"Chromspun"**—Black

Denier & Filament	Regular Twist		Intermediate Twist		Low Twist	
	Cones	Beams	Cones	Beams	Cones	Beams
55/13	\$1.19	\$1.17	\$1.14	\$1.18	\$1.12	—
75/19	1.16	1.14	1.15	1.17	1.09	—
100/25	1.10	1.08	1.09	1.03	—	—
150/38	—	—	—	—	—	—
300/75	—	—	—	—	—	—
450/114	—	—	—	—	—	—
900/230	—	—	—	—	—	—

Prices are subject to change without notice.

Prices on special items quoted on request.

Terms: Net 30 days. Payment—U. S. A. dollars.

Transportation charges prepaid or allowed to destination in continental United States except Alaska. Seller reserves right to select route and method of shipment. If Buyer requests and Seller agrees to a route or method involving higher than lowest rate Buyer shall pay the excess of transportation cost and tax.

* "Estron" is a trade-mark of the Eastman Kodak Company.

** Chromspun is a trade-mark of the Eastman Kodak Company.

RAYON

American Bemberg

Current Prices

Regular Production Reel Spun Yarn

Den/Fil	Skeins	High Turn Skeins & Cones					
		Turn	Turned*	8½	12	15	18
		Skeins	& Cones	Turns	Turns	Turns	Turns
40/30	\$1.49	\$1.95	—	—	—	—	—
50/36	1.29	1.55	—	—	—	—	—
65/45	1.22	1.38	—	—	—	—	—
76/60**	1.11	1.25	—	—	—	—	—
100/74**	1.02	1.15	—	—	—	—	—
125/60	1.01	1.12	\$1.16	1.37	—	—	—
150/120	.99	1.06	1.18	1.33	—	—	—
300/225	—	1.01	—	—	1.14	—	—
900/372	—	.91	—	—	—	—	—
1800/744	—	.91	—	—	—	—	—

* Turn includes twists up to 6 turns on 40 and 50 denier, and up to 5 turns on heavier deniers.

** Spun Dyed Cupracolor Black 15¢ per lb. extra.

44" HH Spool Spun Yarn

Den/Fil	Tubes	5 Turn					
		Turn	Turn	5	5	12	15
		Beams	Cones	Beams	Cones	Beams	Cones
40/30	\$1.35	\$1.35	—	—	—	—	—
50/36	1.05	1.05	—	—	—	—	—
65/45	1.13	—	—	—	—	—	—
75/45*	1.04	—	\$1.15	\$1.15	\$1.38	1.38	\$1.46
100/60*	.96	—	1.10	1.10	1.30	1.30	1.38
125/60	.91	—	1.06	1.06	—	—	—
150/90*	.83	—	.87	.87	1.21	1.21	1.30
150/120	.87	—	.99	—	—	—	—

* Available also in Spun Dyed Cupracolor Black at 15¢ per lb. extra.

44" HH "Parfe" Spool Spun Yarn

Den/Fil	No	5 Turn					
		Turn	Turn	5	5	12	15
		Cones	Cones	Beams	Cones	Cones	Cones
50/36	\$1.60	\$1.85	—	—	—	—	—
75/45	1.48	1.58	1.58	1.78	1.88	—	—
100/60	1.38	1.48	1.48	1.68	1.78	—	—
150/90	1.21	1.28	1.28	1.63	1.73	—	—
300/120	1.21	1.28	—	—	—	—	—

Nub-Lite (Short Nubbi)

Code	Den/Fil	2½ Turn					
		Natural	2½ Turn	Natural	2½ Turn	Natural	2½ Turn
		Cones	Cones*	Cones	Cones*	Cones	Cones*
1515	160/90	—	—	—	—	—	—
1519**	155/90	—	—	—	—	—	—
2008	200/120	—	—	—	—	—	—
3002	315/180	\$1.15	\$1.05	—	—	—	—
4011	410/224	1.15	1.05	—	—	—	—
6001	600/360	1.13	1.03	—	—	—	—
8001	860/450	1.13	1.03	—	—	—	—

* Basic price for cones when dyed. Dyed Colors 30 and 35 cents above basic price. Prices based on 200 lb. dyed lots only. Prices for natural yarn skeins same as natural cone prices.

** Code 1519 can be run in warp or filling.

CUPONI Type B

Code	Den/Fil	2½ Turn					
		Cones	Cones*	Cones	Cones*	Cones	Cones*
9650	70/45	—	—	—	—	—	—
9660	100/60	—	—	—	—	—	—
1545	150/90	—	—	—	—	—	—
9730	285/135	—	—	—	—	—	—
9792	450/225	—	—	—	—	—	—
9814	600/372	—	—	—	—	—	—
9837	940/372	—	—	—	—	—	—

* Spun Dyed Cupracolor is spun 150, 285, and 940 deniers at 35¢ per pound extra. Cupracolor Black Comes in all deniers."

STRATA SLUB

Code	Den/Fil	Turned Cones		Price
		3½	2½	
9747	275/225	—	—	\$1.25
9798	450/372	2½	—	1.15
9823	600/372	2½	—	1.10
9847	960/372	2½	—	1.02
9885	1290/372	1½	—	1.00
9934	2680/744	1½	—	1.00

* Spun Dyed Cupracolor is spun in 600 and 960 deniers at 35¢ per pound extra."

FLAIKONA

Code	Den/Fil	Turned Cones	Price
9669	150/148	2½	\$1.35
9769	300/224	2½	1.25
9782	450/270	2½	1.05
9809	600/360	2½	1.05
9840	900/450	2½	1.00
9924	2000/744	2½	.95

"Spun Dyed Cupracolor Black 35¢ per pound extra."

Terms: Net 30 days. F. O. B. shipping point. Minimum freight allowed to consignee's nearest freight station east of the Mississippi River. To points west of the Mississippi River minimum freight allowed to Memphis, Tennessee. Goods after shipment shall be at buyer's risk. Merchandise transported in seller's own trucks or those of its affiliates is sold F. O. B. delivery point.

American Enka Corp.

Current Prices

Effective June 29, 1959

Standard Quality Yarns

NATURAL

Weaving Skeins Knitting

Den/Fil.	Luster	Turns	Cones	Beams	Long	Short	Cakes	Trays
50/18	E	5	S	—	—	—	—	1.63
50/20	B	2.5	S	—	—	—	—	—
75/10	B	3	S & Z	—	—	—	—	—
75/18	E	4	S	—	—	—	—	—
75/30	B	2.5, 4S & Z	1.14	1.14	1.22	1.31	1.02	1.29
75/45	B	8	S	1.24	1.39	1.49	1.12	1.24
75/45	P,E	2.5	4.5S & Z	1.14	1.14	1.22	1.31	1.14
75/60	B,P	3.4	Z	—	—	—	—	—
100/14	B	3	S & Z	—	—	—	—	—
100/40	B,E	12	S	—	—	—	—	—
100/40	B	4.5	S & Z	—	—	—	—	—
100/40	B	6	S	1.17	1.26	1.36	1.09	—
100/60	B	4	S	—	—	—	—	—
125/40	E	2.5	S	—	—	—	—	—
150/40	B,P,E	2.1, 3S & Z	.82	.82	.91	.98	.78	.82
150/40	B,E	5	S & Z	.90	.90	1.10	1.20	.86
150/40	B,P,E	8	S & Z	.95	.95	1.15	1.25	.91
150/90	E	2.1	S & Z	.83	.83	—	—	—
200/40	P	3	S	.73	.76	—	—	—
200/40	B	3	S	.73	.76	—	—	—
250/60	P	2.4	Z	—	—	—	—	—
300/50	B,E	3	S	.73	.76	—	—	—
300/60, 120	B,P,E	2.1, S & Z	.73	.73	.79	.86	.71	.73
300/60	B	3.5	S	.73	.73	.79	.86	.71
300/60	B	6	S	.83	.83	.94	.81	—
300/40, 120, H.T.	B	2.5	—	—	—	—	—	—
450/80	B,E	3	S	.69	.71	.76	.83	.67
600/80	B,E	3	S	.73	.75	—	—	—
600/120	B	3	S	.69	.71	.76	.83	.67
900/120	B	3.4	S	.69	.71</td			

Polymer PRODUCTS

YARN PREPARATION

Nylon Size (Polyacrylic Acid TS-20)†
Dacron Size (Polyfilm SD)
Loom Finish Size (Polyfilm L)
Fugitive Tints (Rinse Free Colors)
Softeners, Waxes, Lubricants, Plasticizers,
Gelatines, Penetrants, Soluble Crayons

PRINTING-ROLLER and SCREEN

GUMS and THICKENERS
Water Soluble (Polygum 220, 221, 225, 230, 260)
Prepared Type (Polyprint SM 500)
EMULSION BASE THICKENERS FOR ALL DYESESTUFFS

FINISHING

SOFTENERS
Cations (Polysoftener 200, 250, 800)
Anions (Polysoftener 75, 346 1525, 1610)
Nin-Ionic (Polysoftener 100)
Sewing Lubricant A554

PLASTICIZERS

Polyflex 120, 910
Polytube P (Polyethylene Emulsion, Anionic)
Polytube EE (Polyethylene Emulsion, Non-Ionic)

RESINS

Water Soluble (Polybond 20, 60, 90, BF)
Thermo Plastic (Polyvin Series)
Thermo Setting: Polyresin FS (Cyclic Urea Formaldehyde); Polyresin A850

WEIGHTERS

Polyweighter P
Polyweighter 6U

PIGMENT COLORS*

Imprint: Resinated Concentrates for Water System Printing
Impad: Concentrates for Pad Dyeing
Imperse: Non-Ionic and Anionic Aqueous Dispersions

PIGMENT BINDERS

Binder Concentrate 1717
Low Crock Binder (1559, 1718)

ADHESIVES

Screen Table Adhesive W70
Screen Machine Adhesive SP

PENETRANTS, DETERGENTS, DEFOAMERS, THICKENERS, WETTING, AND REWETTING AGENTS, SYNTHETIC DYEING ASSISTANTS

†Sole agents to textile industry for B. F. Goodrich Chemical Co., mfrs.

*Sole agents to textile industry for Imperial Paper & Color Co., mfrs.

Polymer

POLYMER INDUSTRIES

Springdale, Conn.

POLYMER SOUTHERN

Greenville, South Carolina

Rudolph Berthoud has been appointed field supervisor for chemical specialties sales at Ciba Co., Inc.

Herbert Kishbaugh has been appointed manager of the New York sales branch of Allied's Solvay Division.

Standish W. Holmes has been appointed to the position of merchandising director and **Jay Kaner**, advertising and merchandising manager, of American Enka Corp.

Edward J. Schellenberg, Jr. has been named president of Atwater Throwing Co., division of Hess, Goldsmith & Co., succeeding his father who died recently. **Robert P. Schellenberg** has been named a vice president.



J. G. Fox, Jr.

Kerby H. Fisk has become chairman and chief executive officer of Allied Chemical Corp., **Harry S. Ferguson**, executive vice president, has become chairman of the executive committee and chief administrative officer, and **Chester M. Brown**, vice president of Allied and president of the National Aniline Division, has become president and chief operating officer. **James G. Fox, Jr.** has been appointed president of National Aniline Division.

Harold Blancke has been elected chairman and **George Schneider**, vice chairman of Celanese Corp. of America.

Prof. Thomas A. Campbell, Jr. has been appointed head of the textile management department at Clemson College and **Dr. F. I. Brownley, Jr.** has been named to head the department of chemistry and geology.

Martin B. Friedman has been named manager of the advertising and promotion department of American Cyanamid Company's Organic Chemicals Division.

Charles A. Haynes, operations manager at the Worcester plant of Howard Bros. Mfg. Co. has been elected a vice president of the company.

John M. McLean has been elected a vice president of Iselin-Jefferson Co., Inc.

(Continued on Page 109)

Accurate



DIAL CONTROL of YARN TENSION

at Any Number of Stations!

The Lindly ELECTROTENSE is the new, inexpensive, electro-mechanical way to control yarn tension from almost zero to about 20 grams. A turn of a single, centrally located dial applies desired tension evenly and simultaneously at all tension stations.

What are the advantages?

The Lindly ELECTROTENSE permits easy, instant change of yarn tension. It results in more uniform beams, more yarn per warp beam, less maintenance and machine down-time, fewer broken ends and better cloth.

GET THE FULL FACTS ON THIS NEW TIME-SAVING, QUALITY-IMPROVING, COST-CUTTING LINDLY SYSTEM. WRITE, WIRE OR PHONE TODAY!

It Pays to Know the Lindly Count



LINDLY & COMPANY, INC.

248 HERRICKS ROAD
MINEOLA, NEW YORK

150	24-40	Bright	.98	.91	.82	.82	.78
150	40	Semi-Dull	.98	.91	.82	.82	.78
150	40	Dull	...	...	.82	.82	.78
150	90	Dull	...	...	.83	...	.79
200	10-44	Bright	.97	.90	.81	.81	.77
250	60	Semi-Dull & Dull	.96	.89	.80	.80	.77
300	15	Bright	...	...	.82	.78	...
300	30	Dull Flat Filament	...	...	...	.85	...
300	44	Bright & Dull	.86	.79	.73	.73	.71
300	234	Dull	...	...	.83	...	.81
375	60	Bright	...	...	.72	.72	...
450	60-100	Bright	...	.76	.69	.71	.67
600	100	Bright & Dull	...	.76	.69	.71	.67
900	50-100-150	Bright	...	.76	.69	.71	.67
1200	75	Bright	...	.76	.69	.71	...
2700	150	Bright	...	.76	.69	.71	...

Extra Turns Per Inch							
75	30	Bright	6-Turns	\$1.49	\$1.39	\$1.24	\$1.24
100	40	Bright	6-Turns	1.36	1.26	1.17	1.17
150	40	Bright	6-Turns	1.20	1.10	.90	.88
200	44	Bright	6-Turns	...	1.01	.96	.96
300	15	Bright	5-Turns	...	...	.86	.86
300	44	Bright	4.3-Turns	...	...	.81	.79
300	44	Bright	6-Turns	.94	.87	.86	.84
300	120	Rayflex	6-Turns	...	...	.93	.93
600	30	Bright	5-Turns	...	.84	.82	.80

Rayflex Yarns

75	30	Rayflex	\$	\$	\$1.22	\$1.22	\$1.13
100	40	Rayflex	...	...	1.07	1.07	.99
150	40-60	Rayflex	...	...	.85	.85	.81
200	75	Rayflex	...	...	.84	.84	.80
300	60-120	Rayflex	...	...	.75	.75	.73
450	120	Rayflex	...	...	.71	.71	.69
600	234	Rayflex	...	...	.71	.71	.69
900	350	Rayflex	...	...	.78	.71	.69

Thick & Thin Yarns

150	40-90	Bright & Dull	\$	\$	\$1.18	\$	\$
200	75	Bright & Dull	...	...	1.08	...	...
300	120	Bright & Dull	...	...	.98	...	...
450	100	Bright & Dull	...	...	.92	...	...
490	120	Bright & Dull	...	...	.98	...	...
900	350	Dull	...	...	1.03	...	...
920	120	Bright & Dull	...	...	1.03	...	...

Colorspun Yarns

Denier	Type	Cones/Tubes	Beams/Spools
75	Regular Strength	\$1.71	
100	Regular Strength	.35	
150	Regular Strength	.17	
200	Regular Strength	.14	
300	Regular Strength	.09	
450	Regular Strength	.05	
600	Regular Strength	.05	
900	Regular Strength	.05	
300	High Strength	.11	
450	High Strength	.06	
900	High Strength	.06	
300	Regular Strength 5-Turns	.19	

Avicron Yarns

Avicron Yarns

Denier	Filament	Cones/Tubes	Beams/Spools
1800	100-200	Singles & 2 Ply	\$68
2700	150-300-980	Singles & 2 Ply	.65

Viscose Filament Yarns

The following material deposit charges are required:	
Metal Section Beams	\$170.00 each
Metal Section Beam Racks	75.00 each
Metal Tricot Spools—14" flange	30.00 each
21" flange	60.00 each
32" flange	150.00 each
Metal Tricot Spool Racks—14" flange	135.00 each
21" flange	100.00 each
32" flange	75.00 each
Wooden Tricot Spool Crates	20.00 each
Cloth Cake Covers	.05 each

Same to be credited upon return in good condition—freight collect.

Celanese Corp. of America

Current Prices

Effective June 24

Viscose Rayon Filament Yarn Prices—Bright and Dull

Denier/Fil/Twist	Beams	Cones	Cakes
75/30/3		1.10	.98
100/40/22	.97		
100/40/3		.96	.88
100/40/5		1.02	
100/60/22	NS	.96	
100/60/3		.98	.90
125/40/22		.93	
125/40/3		.94	.85
150/40/0	NS	.74	.65
150/40/22		.81	
150/40/3		.79	.76
150/40/5		.90	.86
150/40/8		.95	.91
150/90/0	NS	.77	
250/60/0	NS	.74	
250/60/3		.80	.77
300/50/0	NS	.70	
300/50/2Z		.72	
300/50/3		.70	.69
450/120/0	NS	.67	

Terms: Net 30 days. Transportation prepaid or allowed to any destination in U. S. A.

Prices subject to change without notice.

All previous prices withdrawn.

Prices on unlisted items can be obtained upon request.

Orders are subject to conditions of sale appearing on our acknowledgments of orders.

E. I. du Pont de Nemours & Co.

Textile Fibers Dept. Current Prices

Effective with orders June 24, 1959

Bright and Dull

Den.	Fil.	Turns/ Inch Up to	Beams	Cones (A)	Cones	Tubes	Cakes
40	20	3	Textile "Cordura"*	\$1.97	\$1.92		
50	20	3	Textile "Cordura"	1.70			
50	35	3	Textile "Cordura"	1.72	1.67		
75	30	3	Bright	1.77			
100	15	3		\$1.14	1.14	1.02	
100	40	3	Bright	.98	.98	.90	
100	60	3	Dull	.96	.96	.87	
125	50	3		.92	.82	.78	
150	40	3	Bright	.82	.82	.78	
150	60	3	Textile "Cordura"	.875	.845		
150	100	3	Dull	.83			
300	120	2.5		.73	.73	.71	
450	72	3	Textile "Cordura"	.74	.74	.72	
600	96	3	Bright	.69	.69	.67	
600	240	3	Textile "Cordura"	.72	.70		
900	50	3	Bright	.67	.67		
900	144	3	Bright	.69	.69	.67	
1165	480	3	Textile "Cordura"	.72	.70	.68	
2700	150	3	Bright	.69			

Thick and Thin

100	40	3	#7 Bright	1.42			
150	90	3	#7 Bright	1.08			
200	80	3	#7 Bright	1.08			
450	100	3	#7 Bright	.92			
1100	240	3	#60 Bright	1.03			
2200	480	3	#60 Bright	.98			

Monofil

150	1	3	Bright	1.35			
300	1	3	Bright	1.10			
600	1	3	Bright	1.00			

Plush

300	30	3	Dull	.85	.81		
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(A) 2¢/lb. additional for cones less than 3#.

Terms: Net 30 days.

Domestic Freight Terms are F.O.B. shipping point, freight prepaid on our route within the continental limits of the United States, excluding Alaska.

* "CORDURA" and "SUPER CORDURA" are Du Pont's registered trade-marks for its high tenacity rayon yarn.

Industrial Rayon Corp.

Current Prices

Prices Effective June 29, 1959

Denier	Filament	Turns/ per In.	Type	Beams	2.8# Cones	2.8# Tubes	Skins
150	40	2.5"S"	Bright	.82	.82	.91	
200	20	2.5"S"	Bright	.81	.81	.90	
300	44	2.5"S"	Bright	.73	.73	.79	
450	60	2.0"S"	Bright	.69	.69	.76	
600	90	1.5"S"	Bright	.69	.69	.76	
900	50	2.0"S"	Bright	.69	.69	.76	
900	150	2.0"S"	Bright	.69	.69	.76	
1100	480	2.0"S"	Bright extra strong	.66	.66	.73	

Standard skein lengths—150 denier, 16,300 yards; 300 denier, 6,500 yards; 450 denier, 4,400 yards; 600 denier, 3,200 yards; 900 denier, 2,100 yards; 1100 denier, 2,000 yards.

Lustre #4 is semi-dull.

Prices are subject to change without notice.

Strawn Yarns

Denier	Filament	Turns/ per In.	Type	4.4# Cones	4.4# Spools and Tubes	Skeins
150	1	0	Bright and Dull	1.25	1.30	1.35
150	1	2	Bright and Dull	1.25	1.30	1.20
300	1	2	Bright and Dull	1.10	1.15	1.20
300	1	0	Bright and Dull	1.10	1.15	1.10
450	1	0	Bright and Dull	1.00	1.05	1.10
450	1	2	Bright and Dull	1.00	1.05	1.10
1250	1	0	Bright and Dull	1.00	1.05	1.10
1250	1	2	Bright and Dull	1.00	1.05	1.10

Terms: Net 30 days f.o.b. point of shipment; title to pass to buyer on delivery of goods to carrier. Domestic transportation charges prepaid with transportation allowed at lowest published rate to all points in continental United States except Alaska.

Prices are subject to change without notice.

North American Rayon Corp.

Current Prices

Prices Effective July 3, 1959

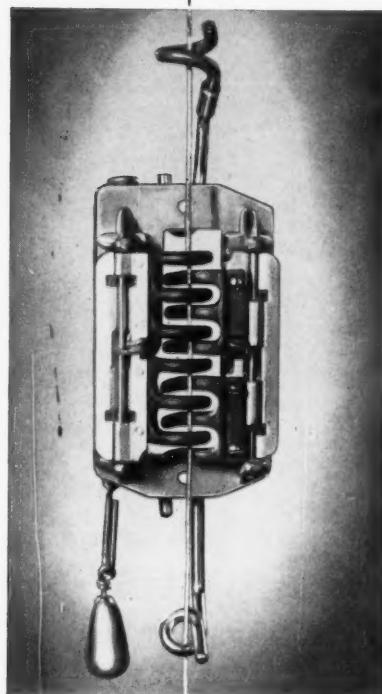
Denier/Filament	Twist	Knitting*	No Twist Cones	Beams, Tubes**	Untreated Cakes

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try
HEANIUM

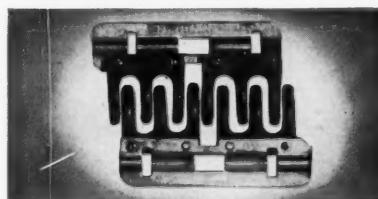


**HEANIUM TENSION FINGERS
AND PIGTAILS FOR TENSION
ASSEMBLIES ELIMINATE
YARN DAMAGE**



If guide wear is a problem in your mill...

try
**HEANIUM T-3-F
FINGER ASSEMBLIES**



HEANIUM INDUSTRIAL CERAMIC CORP.
NEW HAVEN 3, CONNECTICUT

Southern Representative: R. L. Carroll, P. O. Box 1676,
Greenville, S. C.

Alfred N. Henschel has been appointed supervisor of the textile auxiliary application laboratories of Metro-Atlantic, Inc.

G. Dent Mangum, Jr. has been named vice president and director of research at National Textile Research, Inc.

Joe D. Moore has been appointed vice president in charge of textile manufacturing and finishing operations at Reeves Brothers, Inc. He will make his headquarters at the Spartanburg office.



R. E. Hamilton

Hamilton New TTMA Head

R. E. Hamilton has been elected executive vice president of the Tufted Textile Manufacturers Association. During the years he was with Cabin Crafts, Inc., he served as treasurer, vice president, president, and on many committees of the Association.



J. N. F. Reynolds, Jr.

James N. F. Reynolds, Jr. has been appointed vice president of manufacturing for Van Norman Industries, Inc.

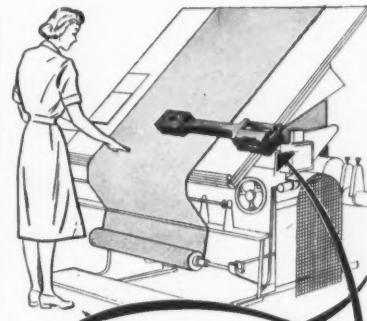
Clark Hayden has joined Waumbec Dyeing and Finishing Co. as general manager.

Walter V. Walukiewicz has become manager of the technical service laboratories of Wica Chemicals, Inc. and **Charles G. Lanford** has been appointed chief chemist of the latex development and application laboratories.

Deaths

James F. Malcolm, chairman of the board of Revonah Spinning Mills. He died at the age of 80 after a long illness.

Elijah Kent Swift, chairman of the board of directors of Whitin Machine Works. He was 80 years of age.



**Something
you owe
your customers**

Accurate textile measurement is what your customers expect. Give it to them! Show them indisputable evidence with a "TRUMETER" printed ticket or mill tag, delivered at any point during the run. This way you not only eliminate short-measure complaints and illegible handwritten records—you cut out waste completely. And that means **EXTRA PROFITS!**

"Trumeter" Standard
Measuring Machine



"TRUMETER"

can be fixed to most
Inspection, Plaiting, Wind-
ing, Rolling and Doubling
machines. Models are available for all types and
widths of material—fine nylon, woolens, wors-
teds—even carpets, plastics, etc. It adds one
way—subtracts the other and delivers its
printed ticket with one depression of a lever.
"TRUMETER" is always accurate — always
reliable. There's one for your need. Write now
for particulars of complete line.



• MEASURING • REVOLUTION
• PRE-DETERMINED • STROKE
RIBBON & TAPE MEASURERS
WRITE FOR CATALOG & PARTICULARS

TRUMETER COMPANY

38 W. 32 ST. New York 1, N. Y.

Represented in all Southern Textile districts,
Pennsylvania, New Jersey and the New
England States.

75/30	12	1.35	
75/30	15	1.37	
75/30	20	1.40	
100/40/60	3.5	.98	.90
100/40	12	1.22	
125/25/60	3	.80 1/2	.82
150/42	0	.74 1/2	.87
150/42/60	3	.80 1/2	.78
300/75	0	.71	
300/75	3	.73	.73
900/46	2.5	.69	.69
1800/92	2.5	.69	.69

* Oiled Cones \$.01 per pound extra for Graded Yarns only.
 ** 1 lb. Tubes \$.02 per pound extra for Graded Yarns only.
 Terms: Net 30 days, F.O.B. shipping point, minimum freight allowed to consignee's nearest freight station east of the Mississippi River. To points west of the Mississippi River minimum freight to Memphis, Tennessee allowed. Goods after shipment shall be at buyer's risk. Merchandise transported in seller's own trucks or those of its affiliates is sold F.O.B. delivery point.
 Prices subject to change without notice.

TRIACETATE

Celanese Corp. of America

Current Prices Arnel Yarn Prices
Bright & Dull

Effective August 19, 1958

Denier and Filaments	Cones	Beams	Thick and Thin Cones
55/WKZ/15	\$. . .	\$1.16	\$. . .
55/2Z/15	1.32	.53	...
75/WKZ/20		1.16	...
75/2Z/20	1.21	1.22	...
100/2Z/26	1.14	1.15	...
150/2Z/40	.95	.96	...
200/2Z/40			...
200/2Z/52	.92	.93	1.25
300/2Z/80	.87	.88	1.23
450/2Z/120	.86	.87	
600/2Z/160	.85	.86	1.21

3 to 5 Turns on Cones or Beams—\$.02 Additional

Premium for Black Arnel—\$.25 Per Pound

Premium for Navy Arnel—\$.37 Per Pound

Terms: Net 30 days. Transportation prepaid or allowed to any destination in U.S.A.

Prices subject to change without notice.

All previous prices withdrawn.

Note: Prices on unlisted items can be obtained upon request.

Orders are subject to conditions of sale appearing on our Acknowledgments of Orders.

CELLULOUSIC HIGH TENACITY YARN and FABRIC

American Enka Corp.

Effective December 19, 1958

Tempra (High Tenacity)

Denier	Elongation	Beams & Cones
1100/480	Low	.62
1230/480	High	.62
1650/720	Low	.56
1820/720	High	.55
2200/960	High & Low	.55

* 1100/720
 ** 1650/1100
 2200/1440

Terms: Net 30 days, f.o.b. Enka, North Carolina, or Lowland, Tennessee; minimum freight allowed to first destination east of the Mississippi River.

* Tyrex certified viscose yarn.

American Viscose Corp.

Effective March 26, 1959

Revised July 1, 1959

Tyrex

Tyrex Certified Viscose Tire Yarn

Denier	Filament	Twist	Beams	Cones
1100	960	0	.66	.66
1100	980	Z	.66	
1650	980	0	.60	.60
1650	980	Z	.60	—

Tire Fabric Made with Tyrex Certified Viscose Tire Yarn and Cord

Denier	Filament	Carcass	Top Ply	Breaker
1100	980/2	.78	.78	.78
1650	980/2	Factor* Open-525	300-490	115-275

* Factor determined by dividing total ends by picks.

Tyrex is a cooperative trade-mark of Tyrex Inc. for Viscose Tire Yarn and Cord.

Rayon Tire Yarn

Yarn

Super "Rayflex"

Denier	Filament	Twist	High Strength	Tire Yarn	110-210-310	120-220-320
1100	490	Z	...	.62		
1100	980	0-Z	...	...	.65	.66
1150	490	Z	.62	...		
1230	490	Z	.62	...		
1650	980	Z	.56	.56	.59	.60
1650	980	0	.56	.56	.59	.60
1875	980	Z	.56	...	.59	.60
2200	980	0	...	.55	...	.57
3300	1960	0	...	...	...	.57

High Strength available on cones — tubes — beams.

Tire Yarn and Super "Rayflex"

0 twist — Available on cones, beams or 10# tubes.

Z twist — Available on beams.

Sewing Thread

1100/980 Super "Rayflex"	0-Z	Cones	.63
1780/980 Super "Rayflex"	0-Z	Cones	.58
Also available in colors at .07 premium.			

All yarns sold "Not Guaranteed for Dyeing".

Rayon Tire Fabric

1100 490	Tire	.74	.74	.74
1100 980	Super-110-210-310	.77	.77	.77
1100 980	Super-120-220-320	.78	.78	.78
Factor* Open-525				
1650 980	Tire	.65	.66	.685
1650 980	Super-110-210-310	.68	.69	.715
1650 980	Super-120-220-320	.69	.70	.725

* Factor determined by dividing total ends by picks.

Cord on cones in regular Tire Yarn twists same as fabric prices.

Other twist combinations — prices quoted on request.

When supplied, yarns and cords in special packages take premiums indicated.

10.5 oz. Wardwell tubes .09

1.5 lb. Regular Braider tubes .05

Adhesive Dipped yarn .05

The following deposit charges are made on invoices.

Beams \$55.00 each

Crates (Metal) 75.00 each

Fabric Shell Rolls 3.50 each

Same to be credited upon return in good condition — freight collect.

Rayon Tire Yarn and Fabric

Terms: Net 30 days. Seller to select and to pay transportation charges of common and contract carrier except when shipment moves West of Mississippi River in which event only the actual cost of transportation to the Mississippi River crossing based on the lowest published freight rate, shall be allowed. Title to pass when merchandise is delivered to consignee. Transportation allowance based on lowest published volume rate shall be granted if merchandise is transported from shipping point in vehicle owned or leased and operated by buyer and title to pass when merchandise is delivered to same. Prices subject to change without notice.

Celanese Corporation of America

Effective December 27, 1955

Fortisan Yarn Prices

Denier	Packages	Natural	Black
30/2.5/40	2 lb. Cones	\$3.00 lb.	\$3.35 lb.
60/2.5/80	4 " "	2.40 "	2.75 "
90/2.5/120	4 " "	2.25 "	2.60 "
120/2.5/160	4 " "	2.05 "	2.40 "
150/2.5/180	4 " "	1.95 "	2.30 "
270/2.5/360	4 " "	1.85 "	2.20 "
300/2.5/360	4 " "	1.85 "	2.20 "

60/2.5/80 Olive Green—Spun Dyed—OG106

Terms: Net 30 days. Shipments prepaid to any destination in U.S.A.

Prices subject to change without notice.

All previous prices withdrawn.

Prices on unlisted items can be obtained upon request.

Orders are subject to conditions of sale appearing on our acknowledgments of orders.

Fortisan-36 Rayon Yarn

Bright

Denier and Filament	Twist	4# cones	8# cones	Tubes	Beams
270/280	0.8Z	\$2.30			
300/280	0.8Z	\$2.05			
300/280	3Z	\$2.20			
400/400	0.8Z	\$1.75			\$1.75
800/800	0.8Z	\$1.25	\$1.25		\$1.20
800/800	3Z	\$1.40			
1600/1600	0.8Z	\$1.15	\$1.15		\$1.10
1600/1600	2 1/2Z	\$1.30			
1600/1600	0				\$1.15

Terms: Net 30 days. Shipments prepaid to any destination in U.S.A.

Prices subject to change without notice.

All previous prices withdrawn.

Prices on unlisted items can be obtained upon request.

Orders are subject to conditions of sale appearing on our acknowledgments of orders.

E. I. du Pont de Nemours & Co.

Textile Fibers Dept. Current Prices

Effective with orders February 26, 1959

"Super Cordura"**

Den Fil	Turns/in	All Packages
1100-720	2	\$.66
1200-720	2	\$.66
1520-960	2	\$.63
1600-960	2	\$.60
1650-1100	2	\$.60
1800-1100	2	\$.60
2200-1440	2	\$.57
2400-1440	2	\$.57

Terms: Net 30 Days.

Domestic Freight Terms are F.O.B. shipping point, freight prepaid our route within the continental limits of the United States, excluding Alaska.

* "CORDURA" and "SUPER CORDURA" are DuPont's registered

trade-marks for its high tenacity rayon yarn.

Industrial Rayon Corporation

Effective March 1, 1959

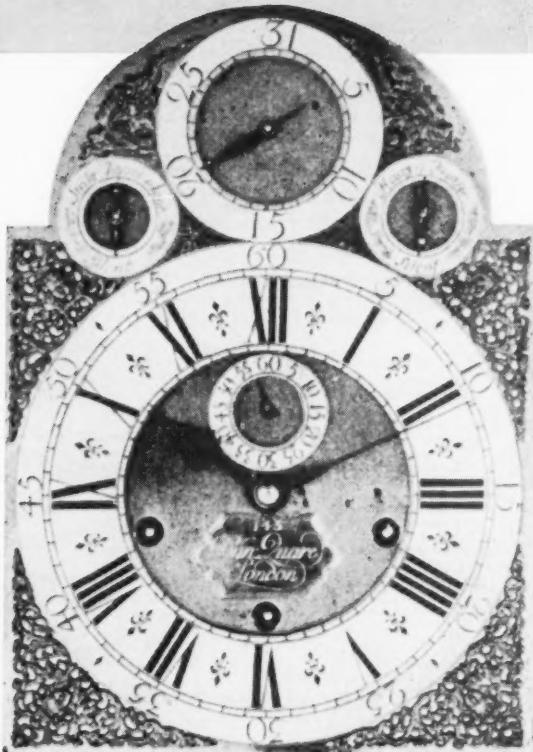
Unbleached Bright High Tenacity Yarns

Single End Beams and Cones—Type 100

Denier	Filament	Turns per Inch	Beams	4.4# Cones
1100	480	2.0 " " "	.62	.62
1650	720	2.0 " " "	.56	.56

Time Is Money

BENJAMIN FRANKLIN



Very rare clock dial designed by "Daniel Quare" of London in 1720.

"Time is my estate", said Goethe. To all successful businessmen, time is a valued asset. They employ Factoring to release valuable time to plan for the Future.



ISELIN-JEFFERSON FINANCIAL COMPANY, INC.

Jarvis Cromwell, President

111 WEST FORTIETH STREET, NEW YORK 18, N. Y.

The Laurel Leaf

BUSINESS MAGAZINE EDITION

FOR METALLIC YARNS FOR ELASTIC YARNS LAUREL RUXITE RX

If you are not getting complete satisfaction from your present coning oil, we suggest that you get acquainted with this popular member of the Laurel family of quality products.

Laurel RUXITE RX is a light viscosity, clear, non-staining coning lubricant, blended especially to provide the highest lubrication without the disadvantages of high oil pickup.

Especially suited for use with metallic and elastic yarns, it is also being used with excellent results on all synthetic yarns, as well as on natural yarns and blends. The lubricants in Laurel RUXITE RX are chosen so as to minimize any tendency to tarnish metal or to attack laminating adhesives. RUXITE RX is finding increasingly wider acceptance for coning tricot yarns and oiling filling yarns for ribbons and other narrow fabrics. This is especially so where subsequent finishing is not desired. It is also used on novelty yarns where its light body helps it spread uniformly throughout the yarn.

Laurel RUXITE RX has great versatility from an application standpoint, too. The most satisfactory method is from oiling attachments on cone winders, but it may also be applied to spraying or by soaking, followed by subsequent extraction of any excess oil.

Why not explore the plus-values of this Laurel quality product today? A letter or postcard request will have a sample and more information on its way to you by return mail.



Laurel SOAP MANUFACTURING CO., INC.
TIoga, Thompson & Almond Sts., Phila. 34, Pa.

Warehouses:

Paterson, N. J. Chattanooga, Tenn.
Charlotte, N. C. Greenville, S. C.

2200	1000	2.0 "Z"	.55	.55
3300	1440	2.0 "Z"	.55	.55
4400	2000	2.0 "Z"	.55	.55

Type 400 prices are 4¢ more.

Terms: Net 30 days f.o.b. point of shipment, title to pass to buyer on delivery of goods to carrier. Domestic transportation charges allowed at lowest published rate to all points in continental United States except Alaska.

PRICES ARE SUBJECT TO CHANGE WITHOUT NOTICE.

North American Rayon Corporation

Super Super High Strength	Cones	Beams
Continuous Yarn Type 710		
1100/720	.68	.68
1650/720	.60	.60

Tire Cord Fabrics

Super Super High Strength Type 710	Rolls
1100/720	.78
1650/720	.69

Terms: Net 30 days, f.o.b. shipping point. Minimum freight allowed to consignee's nearest freight station East of the Mississippi River. To points West of the Mississippi River minimum freight to Memphis, Tenn., allowed. Goods after shipment shall be at buyer's risk. Merchandise transported in seller's own trucks or those of its affiliates is sold f.o.b. delivery point.

CELLULOSIC STAPLE & TOW ACETATE

Celanese Corp. of America

Current Prices

Effective March 2, 1959

Staple

(Most Deniers Available in Bright or Dull Luster)	
Celanese Acetate Staple	
3, 5.5 & 8 Denier	
(Regular Crimp, Type HC, Type D)	\$.36
2, 12 & 17 Denier	
(Regular Crimp, Type HC, Type D)	.37
35 Denier	.38
50 Denier	.40
Type F—5.5 & 8 Denier	.35
Type F—12 & 17 Denier	.36
Type K—(Available under Celanese License Agreement)	.39
%" to 1%" length (All Deniers)	.03 (Premium)
35 Denier Flat Filament Acetate	.40
Non-Textile Acetate Fibers	.29*

Tow (Celatow)

3, 5.5 & 8 Denier	\$.37
2, 12 & 17 Denier	.38
35 Denier	.40
35 Denier Flat Filament Acetate Tow	.42
50 Denier	.42

Terms: Net 30 days. Transportation prepaid or allowed to any destination in U.S.A. east of Mississippi River. Transportation prepaid to any U.S.A. destination west of Mississippi River, but charge is made for the portion of transportation from river crossing nearest customer's location.

Prices subject to change without notice.

All previous prices withdrawn.

* No transportation allowed (F.O.B. shipping point.)

Note: Prices on unlisted items can be obtained upon request. Orders are subject to conditions of sale appearing on our acknowledgments of orders.

CROSS-LINKED

Courtaulds (Alabama) Inc.

Effective April 14, 1959

Corval™

Man-made, cross-linked, cellulosic staple, Bright and Dull, 1½, 3 and 5½ denier	\$.40 per lb.
---	----------------

Topel™

Man-made, cross-linked, cellulosic staple, Bright and Dull, 1½, 3 and 5½ denier	\$.37 per lb.
Terms: Net 30 days f.o.b. LeMoyne, Alabama; Minimum transportation allowed to points in U.S.A. east of Mississippi River.	

RAYON

American Viscose Corp.

Current Prices

Rayon Staple

	Bright and Dull
Regular	\$.33
"Viscose 22"	.33
Extra Strength	
1.0 Denier	.36
"Avisco XL"	
1.0 Denier	.42
1.5 & 3.0 Deniers	.39
"Avisco Crimped"	
1.25 Denier	.36
3.0 & 5.5 Deniers	.34
8.0 & 15.0 Deniers	.35
"Avisco Super L"	
8.0, 15.0 & 22.0 Deniers	.36

COLORSPUN STAPLE

Color	Code	Price
Sea Foam	517	47¢
Spun Gold	614	47¢
Cascade	419	42¢
Silver Gray	208	42¢
Bridal Rose	710	42¢
Pale Pink	708	42¢
Rosewood	835	47¢

Bisque	803	42¢
Champagne	833	42¢
Sandalwood	802	42¢
Apple Red	700	58¢
3.0 Denier 2"		
Mint Green	505	47¢
Pale Pink	708	42¢
Bisque	803	42¢
Sandalwood	802	42¢
Nutmeg	801	47¢
Gold	603	42¢
Turquoise	408	42¢
Wine	304	58¢
Gray	208	42¢
Spice Brown	800	47¢

Rayon Tow

Grouped Continuous Filaments (200,000 Total Denier)

1.5, 3.0 & 5.5 Denier Per Filament

.35

9.0 Denier Per Filament

.37

Terms: Net 30 days.

American Enka Corp.

Current Prices Effective 7/1/59

Rayon Staple

Regular

	Brt.	Dull
1.5 and 3 denier	\$.33	
Crimped		
6.5 denier	.34	
8 denier	.35	
15 denier	.35	.35

Celanese Corp. of America

Current Prices

Effective May 1, 1959

Rayon Tow

Bright & Dull

.35

1.5, 3, 5.5 D.P.F.

Total denier 200,000

.37

8 D.P.F.

Total denier 207,000

Terms: Net 30 days. Transportation prepaid or allowed to any destination in U.S.A. East of Mississippi River. Transportation prepaid to any U.S.A. destination West of Mississippi River, but charge is made for the portion of transportation from river crossing nearest customer's location.

Prices subject to change without notice.

All previous prices withdrawn.

Note: Prices on unlisted items can be obtained upon request.

Orders are subject to conditions of sale appearing on our Acknowledgments of Orders.

Courtaulds (Alabama) Inc.

Effective April 14, 1959

Rayon Staple

Bright

\$.33

1½ and 3 denier

Available in 1½", 1-9/16" and 2".

Crimped Rayon Staple

\$.34

3 and 5½ denier

Available in 1-9/16" and 3".

3 denier

Available in 2".

Coloray® Solution Dyed Rayon Staple

Price per lb.

Color	Black	39¢
Silver Grey		41¢
Mocha		41¢
Tan		41¢
Medium Brown		41¢
Aqua		42¢
Rose		42¢
Dawn Pink		42¢
Ecru		42¢
Dark Brown		42¢
Slate Grey		45¢
Sulphur		46¢
Nugget		46¢
Light Blue		46¢
Crystal Blue		47¢
Apple Green		47¢
Sage		47¢
Pacock Blue		48¢
Medium Blue		50¢
Indian Yellow		51¢
Dark Blue		51¢
Hunter Green		51¢
Turquoise		52¢
Malachite Green		53¢
Red		58¢

In addition to the above, Black is also available in:

1½ den. 1½"

3 den. 1½"

3 den. 1-9/16"

Terms: Net 30 days f.o.b. LeMoyne, Alabama: Minimum transportation allowed to points in U.S.A. east of Mississippi River.

The Hartford Fibres Co.

Div. Bigelow-Sanford Carpet Co., Inc.

Rayon Staple

Effective November 3, 1958

REGULAR

1.5 denier Bright	
1 9/16", 2"	.33

VISCALON 66 (Crimped)

8 denier 3" Bright	
15 denier 3" Bright	.35
15 denier 3" Dull	.35

"KOLORBON"—Solution Dyed Rayon Staple—3" and 6"

Labeling Act Guarantees

(Continued from Page 99)

4. Where you have received the fiber content information and guaranties, you might then furnish this information to any customers who have specifically inquired. With respect to fabrics previously delivered to your customers, you should incorporate in your letter a separate guaranty of the fiber content. With respect to future shipments, your letter should confirm that a continuing guaranty has been filed.

5. Where you have not received guaranties covering future deliveries, you are not technically in a position to file your own continuing guaranty. In such case, you will be restricted to giving a separate guaranty covering those fabrics which have been guaranteed by your mills.



The Borregaard Co., Inc.

Norway House, 290 Madison Avenue
NEW YORK 17, NEW YORK

Norwegian Viscose Rayon Staple Fiber

Bright  **Dull**

Sole Agent For United States, Canada, Mexico, Cuba



RUSCH & CO.

Factors

1441 Broadway,
New York 18, N. Y.
Wisconsin 7-3500

Treat Your Wash and Wear to "POL-E-TEX"



THE Permanent FINISH
THAT PUTS MORE
Sales Appeal IN WASH
-AND-WEAR GARMENTS!

"POL-E-TEX" . . . for natural or synthetic fabrics. Assures better lubrication, hand and drape. Improves the tear strength, crease recovery and abrasion resistance of crease-proofing resins. Reduces needle cutting.

Other advantages include high resistance to wear and dirt pick-up; no chlorine retention; no discoloration; no aging rancidity; requires no curing.

Just Try it!



Leatex CHEMICAL COMPANY

2722 NORTH HANCOCK STREET • PHILADELPHIA 33, PA.

	8 Denier Bright	15 Denier Dull	15 Denier Bright
Cloud Grey	.46	.46	....
Sandalwood	.46	.46	....
Nutria	.46	.46	....
Sea Green	.46	.46	....
Mint Green	.46	.46	....
Champagne	.46	.46	....
Midnight Black	.46	....	.46
Gold	.49	.49	....
Turquoise	.46	.46	....
Melon	.49	.49	....
Capri Blue	.46	.46	....
Charcoal Grey	.46	.46	....
Coco	.47	.47	....
Sable	.48	....	.48
Tangerine	.66	....	.66
Chinese Red	.66	....	.66
Larkspur Blue	.46	.46	....
Royal Blue	.66	....	.66
Lemon Peel	.55	.55	....
Kelly Green	.55	.55	....
Bitter Green	.66	....	.66

Terms: Net 30 days. Prices are quoted f.o.b. shipping point, lowest cost of transportation allowed, or prepaid. To points West of the Mississippi, lowest cost of transportation allowed to the Mississippi River crossing.

North American Rayon Corporation

Current Prices

Rayon Staple

	Bright
Super High Tenacity No. 1 (Unshrunken)	....
1, 1.5 & 3 deniers	.40
No. 2 (Preshrunken)	....
1, 1.5 & 3 deniers	.40

Rayon Tow

	57.5
Super High Tenacity 2200 denier, 1.0 and 1.5 D/F	57.5
4400 denier, 1.0 and 1.5 D/F	47.5

TRIACETATE

Celanese Corp. of America

Current Prices

Effective June 7, 1957

(Most Deniers Available in Bright or Dull Luster)

Arnel Staple and Tow

	Bright & Dull
Arnel Triacetate Staple	....
2.5 Individual Denier	.55
5.0 Individual Denier	.55
Arnel Triacetate Tow	....
2.5 Individual Denier	....
114,000 Total Denier	\$.60
5.0 Individual Denier	....
90,000 Total Denier or	....
180,000 Total Denier	....
Packaged on Ball Warps	....

Terms: Net 30 days. Transportation prepaid or allowed to any destination in U.S.A. east of Mississippi River. Transportation prepaid to any U.S.A. destination west of Mississippi River, but charge is made for the portion of transportation from river crossing nearest customer's location.

Prices subject to change without notice.

All previous prices withdrawn.

Note: Prices on unlisted items can be obtained upon request.

Orders are subject to conditions of sale appearing on our acknowledgments of orders.

NON CELLULOSIC YARN NYLON

Allied Chemical Corporation

Caprolan®

Effective August 17, 1959

Denier	Filament	Turn/ In.	Twist	Type**	Package	1st Grade Price/Lb.
200	16	1 1/2	Z	B	Cone	\$1.49
840	136	1 1/2	Z	HBT	Aluminum Tube	1.06
840	136	1 1/2	Z	HBT	Beams	1.06
1050	56	1 1/2	Z	HB	Aluminum Tube	1.15
2100	112	1 1/2	Z	HB	Aluminum Tube	1.11
Heavy Yarn						
2100	408	0	O	HB	Paper Tube*	1.06
2500	408	0	O	HB	Paper Tube*	1.06
3380	544	0	O	HB	Paper Tube*	1.05
4200	680	0	O	HB	Paper Tube*	1.05
4200	224	0	O	HB	Paper Tube*	1.10
5000	816	0	O	HB	Paper Tube*	1.05
5800	952	0	O	HB	Paper Tube*	1.05
7500	1224	0	O	HB	Paper Tube*	1.04
10000	1632	0	O	HB	Paper Tube*	1.04
15000	2448	0	O	HB	Paper Tube*	1.04

Terms—Net 30 days.

Prices subject to change without notice.

All prices quoted F.O.B. Shipping Point.

Following are invoiced as a separate item.

Bobbins—45 cents each.

Aluminum Tubes—40 cents each.

Beams—\$220 each.

Cradles for Beams—\$53.00.

* Paper Tubes non-returnable, no charge.

** Type is used to describe luster and tenacity.

Minimum transportation charges allowed and prepaid in continental United States, excluding Alaska.

B—Bright.

H—High Tenacity.

T—Heat Stabilized.

American Enka Corporation

Enka Nylon Yarn Prices

Effective August 19, 1958

Den/Fil.	Twist	Luster	Type	Tenacity	Pkg.	Net Wt.	Price/Pound	Std. Sub.
15 monofil	0.52	Semi-dull	9506	Normal	Pirn	2 lb.	5.25	5.00
15 monofil	0.52	Semi-dull	9506	Normal	Beam	....	5.36	....
15 monofil	0.52	Dull	9514	Normal	Pirn	2 lb.	5.41	....
15 monofil	0.52	Dull	9514	Normal	Beam	....	5.41	....
15/7	0.52	Semi-dull	9518	Normal	Pirn	1 lb.	7.37	6.70
18/2	0.52	Semi-dull	9524	Normal	Pirn	1 lb.	6.65	6.10
20 monofil	0.52	Semi-dull	9478	Normal	Pirn	1 lb.	4.95	4.50
20/2	0.52	Semi-dull	9478	Normal	Pirn	1 lb.	5.55	5.05
30/4	0.52	Semi-dull	9464	Normal	Pirn	2 lb.	2.62	2.42
30/6	0.52	Semi-dull	9448	Normal	Pirn	2 lb.	2.01	1.91
40/8	0.52	Semi-dull	9448	Normal	Beam	....	2.11	....
40/10	0.52	Dull	9502	Normal	Pirn	2 lb.	2.06	1.96
40/10	0.52	Dull	9502	Normal	Beam	....	2.16	....
50/13	0.52	Semi-dull	9528	Normal	Pirn	2 lb.	1.91	1.76
70/32	0.52	Semi-dull	9622	Normal	Pirn	2 lb.	1.71	1.66
100/32	0.52	Semi-dull	9652	Normal	Pirn	2 lb.	1.65	1.60
200/16	0.62	Bright	9826	Normal	Cone	4 lb.	1.49	1.44
200/16	0.62	Bright	9826	Normal	Beam	....	1.54	....
200/34	0.62	Bright	9832	Normal	Beam	....	1.54	....
200/34	0.62	Bright	9832	Normal	Cone	4 lb.	1.49	1.44
260/16	0.62	Bright	9197	Normal	Cone	4 lb.	1.49	1.44
260/34	0.62	Bright	9197	Normal	Cone	4 lb.	1.49	1.44
520/32	0.62	Bright	9546	Normal	Cone	4 lb.	1.39	1.29

Pirns charged at \$2.25 or \$4.50 each, depending on type. Deposit refunded upon return of pirn in good condition. Cones are non-returnable. Beams and cradles are deposit carriers and remain property of American Enka Corporation.

Terms: Net 30 days. Minimum common carrier transportation charges will be prepaid and absorbed to the first destination in the continental United States. In prepaying transportation charges, the seller reserves the right to select the carrier used.

The Chemstrand Corp.

Current Prices

Effective June 2, 1958

Denier	Filament	Twist	Type*	Package	Standard Price/Lb.	Second Price/Lb.
10	1	O	SD	Bobbins	\$8.42	\$7.81
15	1	O	SD	Bobbins	5.25	5.00
15	1	O	SD	Spools	5.36	....
15	1	O	D	Bobbins	5.30	5.00
15	1	O	D	Spools	5.41	....
20	7	Z	SD	Bobbins	2.96	2.61
30	10	Z	SD	Bobbins	2.36	2.21
30	10	Z	D	Bobbins	2.41	2.21
30	10	Z	HSD	Bobbins	2.36	2.21
30	26	Z	SD	Bobbins	2.49	2.21
40	7	Z	SD	Bobbins	2.11	1.81
40	10	Z	SD	Bobbins	2.01	1.91
40	13	Z	SD	Bobbins	2.01	1.91
40	13	O	SD	Draw Wind	2.01	1.91
40	13	Z	SD	Spools	2.11	....
40	13	Z	D	Bobbins	2.06	1.96
50	17	Z	SD	Bobbins	1.91	1.76
50	17	Z	SD	Draw Wind	1.91	1.76
70	34	Z	SD	Bobbins	1.71	1.66
70	34	O	SD	Draw Wind	1.71	1.66
70	34	Z	SD	Spools	1.81	....
70	34	Z	H	Bobbins	1.71	1.66
70	34	O	B	Draw Wind	1.71	1.66
70	34	Z	D	Bobbins	1.76	1.66
70	34	Z	HB	Bobbins	1.76	1.66
80	26	Z	SD	Bobbins	1.71	1.60
100	34	Z	SD	Spools	1.75	....
100	34	Z	HB	Bobbins	1.70	1.60
140	68	Z	SD	Bobbins	1.60	1.55
140	68	Z	SD	Spools	1.70	....
200	34	O	B	Bobbins	1.60	1.55
200	34	Z	HB	Bobbins	1.49	1.44
210	34	Z	HB	Draw Wind	1.49	1.44
210	34	Z	SD	Spools	1.54	....
210	34	Z	SD	Beams	1.54	....
210	34	Z	RHB	Bobbins	1.59	1.54
260	17	Z	HB	Bobbins	1.49	1.39
260	17	Z	SD	Spools	1.54	....
420	68	Z	HB	Bobbins	1.39	1.29
520	34	Z	HB	Bobbins	1.39	1.29
630	102	Z	HB	Bobbins	1.39	1.29
780	51	Z	HB	Bobbins	1.39	1.29
840	140	Z	HB	Beams	1.06	1.01
840	140	Z	SD	Beams	1.06	1.01
840	140	O	HB	Draw Wind	1.06	1.01
840	140	Z	RHB	Beams	1.06	1.01
840	140	Z	SD	Tubes	1.06	1.01
1040	68	Z	SD	Tubes	1.15	1.05
1040	68	Z	HB	Tubes	1.15	1.05
1680	280	Z	HB	Tubes	1.03	.96
2080	136	Z	SD	Tubes	1.11	1.01
15120	2520	Z	RHB	Tubes	1.04	....

* Types: D—Dull; SD—Semi-dull; B—Bright; H—High tenacity.

Bobbins are invoiced at 25¢ or 45¢ each, depending on type; tubes are invoiced at 40¢ each; spools are invoiced at \$77.00 and \$95.00 depending on type; and beams and crates for beams are invoiced at \$220 and \$25 respectively.

Prices subject to change without notice.

Freight prepaid within Continental United States and Puerto Rico.

we keep a personal file on you!



At ATLANTIC your color is "formularized" to give you the exact same color anytime!

YARN DYEING

**Rayon • Nylon • Acetate • Stretch Yarns
Cakes • Packages • Skeins**

Custom-matched colors. Large dye batches.
Any degree of color fastness. Packaged as desired.

PROMPT DELIVERY

Atlantic
Rayon Corporation

125 WEST 41st ST., NEW YORK 36, LONGACRE 3-4200
PLANT: 86 CRARY ST., PROVIDENCE, R. I.

Bondyne Fabric Program

Greenwood Mills has formed Bondyne Associates as an independent operation to handle a licensing, merchandising and promotion program for Bondyne Dynel blend apparel fabrics. Originally conceived and developed by Greenwood Mills, Bondyne fabric sales expanded from an estimated retail volume of \$1 1/2 million in 1957 to over \$7 million in 1958. In the first five months of this year retail sales were estimated at \$10 million. Bondyne Associates has been assigned all licensing rights for the new textile construction. For further information write the editors.

Report on Hosiery Trade

Total sales in the U. S. hosiery industry in 1958, as represented by shipments, amounted to 150,017,000 dozens of pairs, a gain of 2.2% over 1957. This and other comprehensive information concerning the industry is contained in the 25th annual statistical report of the National Association of Hosiery Manufacturers. For copies of the report write the editors.

ITT Staff Promotions

N. L. Enrick, a frequent contributor to Modern Textiles Magazine, has been appointed associate director of research, Operations Research Division, of the Institute of Textile Technology, Charlottesville, Va. Other staff promotions announced were: Dr. Jack Compton, now vice president and director of research; J. E. Dougherty, now director mill liaison; Dr. E. J. Bernet, now associate director of research, physics and engineering division; Dr. W. H. Martin, now associate director of research, chemistry division, and W. C. Harris, promoted to chairman of the Committee of Academic Studies.



F. New

C. H. White

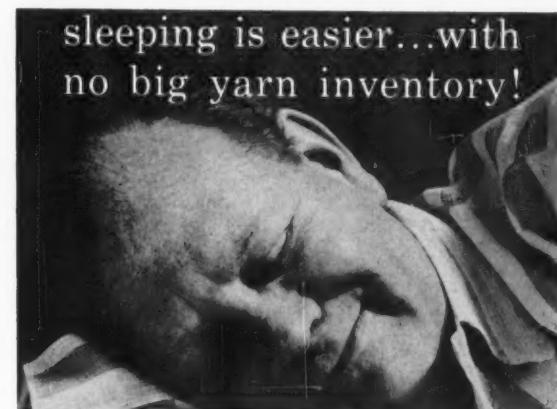
W. B. Dunson

Steel Heddle Shifts Plant

Steel Heddle Manufacturing Co., Philadelphia, Pa., has moved its bobbin plant to its Southern Shuttles Division, Greenville, S. C., from its former location at Greensboro, N. C. At the new location, larger quarters and greater facilities are available.

The Steel Heddle Manufacturing Co. bobbin plant was founded in Greensboro as a subsidiary of the parent company known as Stedco-Southern Inc. It is now being made a full fledged division to be known as Stedco Bobbin Division of Steel Heddle Manufacturing Co. All manufacturing will be done in the same plant as Southern Shuttles Division, which has been enlarged to accommodate it.

Sales representatives for Stedco Bobbin Division of Steel Heddle Manufacturing Co. for South Carolina are R. M. Turner, Box 545, Clinton, S. C., W. B. Dunson of Dunson & New, Inc., Box 321, Greenville, S. C., for North Carolina, Virginia, and Tennessee; Floyd New of Dunson & New, Inc., Box 9202, Plaza Station, Greensboro, N. C., C. H. White, Rt. 6, Box 644, Charlotte, N. C., and for Georgia and Alabama, Hugh K. Smith of Smith, Crawford & Teat, Box 507, West Point, Ga.



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E. I. du Pont de Nemours & Co.

Textile Fibers Dept.

Current Prices

Nylon Yarn

Denier & Filament	Turns/Inch	Type	Package	1st Grade	2nd Grade
7-1	0	200	Bobbin	\$9.47	\$8.82
10-1	0	200	Bobbin	8.42	7.82
12-1	0	200	Bobbin	7.35	6.85
15-1	0	200	Beam	5.36	
15-1	0	680	Beam	5.25	5.00
15-1	0	680	Bobbin	5.41	
15-1	0	680	Bobbin	5.30	5.00
20-1	0	200	Bobbin	4.95	4.50
14-2	0.22	200	Bobbin	7.90	7.30
17-2	0.22	200	Bobbin	7.05	6.50
20-2	0.22	200	Bobbin	5.55	5.05
15-3	0.22	200	Bobbin	6.10	5.60
21-3	0.22	200	Bobbin	5.48	5.05
20-7	0.52	200	Bobbin	2.91	2.61
20-7	0.52	200	Beam	3.02	
20-7	0.52	680	Bobbin	2.96	2.61
20-7	0.52	680	Beam	3.07	
20-20	0.72	200	Bobbin	6.00	
28-4	0.22	200	Bobbin	2.81	2.61
30-10	0.52	200	Bobbin	2.36	2.21
30-10	0.52	200	Tricot Bms	2.46	
30-10	0.52	300	Bobbin	2.51	2.36
30-10	0.52	680	Bobbin	2.41	2.21
30-10	0.52	680	Tricot Bms	2.51	
30-26	0.52	200	Bobbin	2.49	2.21
40-1	0	100	Bobbin	4.03	3.75
40-7	0.52	200	Bobbin	2.11	1.91
40-10	0.52	200	Bobbin	2.01	1.91
40-10	0.52	200	Tricot Beams	2.11	
40-13	0.52	200	Bobbin	2.01	1.91
40-13	0.52	200	Tricot Bms	2.11	
40-13	0.52	400	Bobbin	2.13	1.90
40-13	0.52	680	Bobbin	2.06	1.96
40-13	0.52	680	Tricot Bms	2.16	
40-34	0.52	200	Bobbin	2.21	1.81
50-10	0.52	200	Bobbins	2.11	1.76
50-17	0.52	100/200	Bobbin	1.91	1.76
50-17	0	200	Tubes	1.91	1.76
50-17	0.52	680	Bobbin	2.01	1.76
60-20	0.52	200	Bobbin	1.82	1.65
60-34	0.52	300	Bobbin	1.86	1.76
70-17	0.52	200	Bobbin	1.71	1.66
70-34	0	100	Tubes	1.71	1.66
70-34	0.52	100/200	Bobbin	1.71	1.66
70-34	0	105/205	Paper Tube	1.71	1.66
70-34	0	200	Tubes	1.71	1.66
70-34	0.52	280	Bobbin	1.71	1.66
70-34	0.52	300	Bobbin	1.76	1.66
70-34	0.52	680	Bobbin	1.76	1.66
70-34	0	680	Tubes	1.76	1.66
80-26	0.52	200	Bobbin	1.71	1.60
90-26	0.52	200	Bobbin	1.76	1.66
100-34	0.52	200	Bobbin	1.65	1.60
100-34	0.52	300	Bobbin	1.70	1.60
100-34	0	300	Tubes	1.70	1.60
100-34	0.52	680	Bobbin	1.70	1.60
100-50	0.52	200	Bobbin	1.71	1.60
110-50	0.52	200	Bobbin	1.71	1.60
140-68	0.52	100	Bobbins	1.60	1.55
140-68	0	200	Tubes	1.60	1.55
140-68	0.52	200	Bobbin	1.60	1.55
140-68	0	205	Tube	1.60	1.55
140-68	0.52	300	Bobbin	1.65	1.55
200-20	12	100	Bobbin	1.49	1.44
200-34	0	100	Tubes	1.49	1.44
200-34	0.72	100	Bobbin	1.49	1.44
200-34	0	105	Tube	1.49	1.44
200-34	0.72	680	Bobbin	1.54	1.44
200-68	0.72	100/200	Bobbin	1.56	1.46
210-34	0	300	Tubes	1.49	1.44
210-34	0.72	300	Bobbin	1.49	1.44
210-34	0.72	300	Beam	1.54	
210-34	0	305	Tube	1.49	1.44
210-34	0.72	330	Bobbin	1.59	1.44
220-17	12	300	Bobbin	1.49	1.39
400-68	0.72	100	Bobbin	1.39	1.29
420-68	12	300	Bobbin	1.39	1.29
420-68	12	300	Beams	1.44	
520-34	12	300	Bobbin	1.39	1.29
630-102	0.72	300	Bobbin	1.39	1.29
780-51	12	300	Bobbin	1.39	1.29
800-140	0.52	100	Bobbin	1.39	1.29
840-140	0.52	300/700	Al. Tbs	1.06	1.01
840-140	0.52	300/700	Beam	1.06	...
1680-280	0.52	300/700	Al. Tbs. & Beams	1.03	...

Color-Sealed Yarn

Denier & Filament	Turns/Inch	Type	Package	1st Grade	2nd Grade
30-10	0.52	140	Bobbin	\$2.71	\$2.56
40-13	0.52	140	Bobbin	2.36	2.16
70-34	0.52	140	Bobbin	2.06	2.01
100-34	0.52	140	Bobbin	2.00	1.95
100-34	0	140	Tubes	2.00	1.95
200-20	0.72	140	Bobbin	1.84	1.79
200-34	0.72	140	Bobbin	1.84	1.79
260-17	12	140	Bobbin	1.84	1.79

Industrial Yarn

			Price/Lb.
840-140	0.52	707	Cone
2520-420	0	700	Paper Tube
4200-700	0	700	Paper Tube
5040-840	0	707	Paper Tube
7560-1260	0	707	Paper Tube
10080-1680	0	707	Paper Tube
15120-2520	0	707	Paper Tube

These prices are subject to change without notice. Terms: Net 30 Days.

Types

Type 100—Bright, normal tenacity.

Type 105—Bright, normal tenacity, low shrinkage (5-7%).

Type 140—Bright, color-sealed, black, normal tenacity.

Type 200—Semidull, normal tenacity.

Type 205—Semidull, normal tenacity, low shrinkage (5-7%).

Type 209—Semidull, normal tenacity, improved light durability and dye light fastness.

Type 280—Semidull, normal tenacity, improved light durability and dye light fastness.

Type 300—Bright, high tenacity.

Type 305—Bright, high tenacity, low shrinkage (5-7%).

Type 330—Bright, high tenacity, more heat & light resistant.

Type 400—Semidull, high tenacity.

Type 680—Dull, normal tenacity.

Type 700—Bright, high tenacity.

Type 707—Bright, high tenacity (over 8.5 gpd) cordage yarn.

Freight Terms—Terms are F.O.B. shipping point, freight prepaid our route within the continental limits of the United States, excluding Alaska.

Following are invoiced as a separate item.

Bobbins—25 cents or 45 cents depending on type

Aluminum Tube—40¢ each

Draw Winder Tubes—\$7.00 or \$1.00 depending on type

Tire Cord Beams—\$220.00 each

Cradles for Tire Cord Beams—\$115.00 each

Tricot Beams—\$95.00 each

Cradles for Tricot Beams—\$130.00 each

(Beams and Cradles are deposit carriers and remain the property of E. I. du Pont de Nemours & Co., Inc.)

POLYESTER

E. I. du Pont de Nemours & Co.

Textile Fibers Dept.

Current Prices "Dacron"**

Denier & Filament	Turns/Inch	Luster	Type*	Tubes 1st Gr.
30-14	0		55	\$2.71
30-20	0	Semidull	56	2.71
40-27	0	Semidull	56	2.31
40-27	0	Dull	57	2.36
70-34	0	Semidull	56	1.91
70-14	0	Bright	55	1.91
70-34	0	Bright	55	1.91
70-34	0	Dull	57	1.96
100-34	0	Semidull	56	1.84
140-28	0	Bright	55	1.79
150-34	0	Semidull	56	1.79
220-50	0	Bright	51	1.76
250-50	0	Bright	55	1.76
1100-250	0	Bright	51	1.50
1100-250	0	Bright	52	1.50

Terms: Net 30 days.

Domestic Freight Terms are F.O.B. shipping point, freight prepaid our route within the Continental limits of the U. S., excluding Alaska.

Tubes are invoiced as a separate item at \$7.00 each.

"DACRON" is DuPont's registered trade-mark for its polyester fiber.

SARAN

The National Plastics Products Company—Fibers Division

Odenton, Maryland

41 East 42 Street, New York 17, N. Y. (Oxford 7-8996)

Current Prices:

CONTINUOUS FILAMENT

Type	Twist p. l.	Natural	Colors
1240/10	3	\$1.32	\$1.37
750/20*	3	1.75	1.80

* For filter fabrics and other industrial purposes only.

F.O.B. Odenton, Maryland.

Terms: Net 30 days.

F.O.B. Shipping Point—Minimum transportation allowed (Seller's route and method) within the continental limits of the United States not including Alaska. If Buyer requests and Seller agrees to a route or method involving higher than minimum rate, Buyer shall pay the excess transportation cost.

Note: CRESLAN® is Cyamid's registered trademark for certain of its acrylic fibers. Use of this trademark is authorized only on properly constructed fabrics, after they have been tested and approved by Cyamid.

MODERN TEXTILES MAGAZINE

The Chemstrand Corp.

Current Prices

"Acrilan"*

Effective January 1, 1959

	Regular Acrilan	Aerilan 16
2.0 denier Semi-Dull and Bright staple & tow	\$1.24	\$1.24
2.5 denier Hi-Bull Bright and Semi-dull staple and tow	1.18	1.18
3.0 denier Bright & Semi-dull staple & tow	1.18	1.18
5.0 denier Bright & Semi-dull staple & tow	1.18	1.18
8.0 denier Bright & Semi-dull staple	1.18	1.18
15.0 denier Bright & Semi-dull staple	1.01	1.05

Terms: Net 30 days. Freight prepaid within Continental U. S. & Puerto Rico.

* "Acrilan" is Chemstrand's registered trademark for its acrylic fiber.

The Dow Chemical Company

Textile Fibers Department

Current Prices

"Zefran"*

2.0 denier Semidull & Bright—Staple only	\$1.33
3.0 denier Semidull & Bright—Staple only	1.28
6.0 denier Semidull & Bright—Staple only	1.20

Terms: Net 30 days.

Transportation Terms: F.O.B. shipping point—Freight prepaid our route to points east of the Mississippi River within the continental limits of the U. S., for points west of the Mississippi River crossing nearest purchaser's mill if shipped overland or port of exit of purchaser's choice east of the Mississippi River.

* "Zefran" is Dow's registered trademark for its acrylic alloy fiber.

E. I. du Pont de Nemours & Co.

Textile Fibers Dept.

Current Prices

"Orlon"*** Acrylic Staple & Tow

Type 42	Staple Length	Tow	1st Bds.	Grade
1.0 Denier Semidull	1 1/4, 1 1/2, 2 1/4, 3	390M	\$1.28	
2.0 Denier Semidull & Bright	1 1/4, 1 1/2, 2 1/4, 3, 4 1/2	470M	1.28	
3.0 Denier Semidull & Bright	1 1/4, 1 1/2, 2 1/4, 3, 4 1/2	470M	1.28	
3.0 Denier Semidull Color-sealed				
Black	1 1/4, 1 1/2, 2 1/4, 3, 4 1/2	470M	1.63	
6.0 Denier Semidull & Bright	1 1/4, 2, 2 1/4, 3, 4 1/2	470M	1.18	
6.0 Denier Color-sealed Black	1 1/4, 2, 2 1/4, 3, 4 1/2	470M	1.55	
4.5 Denier Semidull	1 1/4, 2, 2 1/4, 3, 4 1/2	470M	1.18	
10.0 Denier Semidull & Bright	1 1/4, 2, 2 1/4, 3, 4 1/2	470M	1.18	

Tow—Total Denier 470,000

Staple Lengths—1 1/4", 2", 2 1/4", 3", 4 1/2"

High Shrinkage Staple price as Regular Staple

Type 25 \$1.18

This product is designed for Cotton/Rayon System Spinning and is 2.5 denier, 1 1/2" semidull regular shrinkage staple.

Type 38—4. Denier—Semidull—520M Tow

This product can be dyed, stretched and cut to produce staple which will shrink as much as 38% when subjected to heat.

Type 39 \$0.94

This product is designed for woolen system spinning and is a blend of deniers (average 4.2) with a variable cut length.

Type 39A \$0.99

This product is designed for woolen system spinning and is a blend of predominately fine deniers (average 2.4) with a variable cut length.

Type 39B \$0.94

This product is designed for woolen system spinning and is a blend of predominately heavy deniers (average 6.5) with a variable cut length.

F.O.B. Shipping Point—Freight prepaid our route within the continental limits of the United States, excluding Alaska.

MODACRYLIC

Eastman Chemical Products, Inc.

Tennessee Eastman Co.

Effective November 3, 1958

"Verel"** Staple and Tow

Deniers	Dull and Bright
2 and 3	\$1.02 per pound
5, 8, 12, 16, and 20	.92
24 denier	.97

Prices are subject to change without notice.

Terms: Net 30 days. Payment—U. S. A. dollars.

Transportation charges prepaid or allowed to destination in continental United States, except Alaska. Seller reserves right to select route and method of shipment. If Buyer requests and Seller agrees to a route or method involving higher than lowest rate Buyer shall pay the excess of transportation cost and tax.

* "Verel" is a trade-mark of the Eastman Kodak Co.

Union Carbide Chemicals Co.

Div. Union Carbide Corp.

Textile Fibers Dept.

Effective October 1, 1957

Dynel Staple & Tow

Natural Dynel	
3, 6, and 12 Denier, Staple and Tow	1.10 per lb.
24 Denier, Staple and Tow	1.05 per lb.
Dynel Spun with Light Colors:	
Blond or Gray	
3 and 6 Denier, Staple and Tow	1.30 per lb.
Dynel Spun with Dark Colors:	
Black, Charcoal, Brown, Caramel, Green, and Blue	
3 and 6 Denier, Staple and Tow	1.40 per lb.
Dynel Type 63 High Shrinkage (3 Denier only)	Add \$.05 per lb. to above prices

Prices are quoted f.o.b. South Charleston, W. Va.

NYLON

American Enka Corp.

Effective August 19, 1958

Enka Nylon (Nylon Six Staple)

Denier	Luster	Length (Inches)	Price per pound
3	semi-dull	1 1/4, 1 1/2, 2,	\$1.28
6	bright	2 1/2, 3, 4 1/2	1.28
8	bright	2 1/2	1.15
10	bright	3	1.08
15	bright	3	1.08
15	semi-dull	3	1.08

Deniers and lengths of staple not listed above are available upon special request.

Terms: Net 30 days. Minimum common carrier transportation charges will be prepaid and absorbed to the first destination in the continental United States. In preparing transportation charges, the seller reserves the right to select the carrier used.

E. I. du Pont de Nemours & Co.

Textile Fibers Dept.

Current Prices

Nylon Staple and Tow

Denier	Type	Staple Lengths	Tow Bundle	1st Grade Price/Lb.	2nd Grade Staple Only
1.5	200	1 1/4—4 1/2"	None made	\$1.33	\$1.18
1.5	201	1 1/4—4 1/2"	None made	1.35	1.20
2.2	420	1 1/2" only	None made	1.28	1.13
3.0	100/200	1 1/4—4 1/2"	430M	1.28	1.13
3.0	101/201	1 1/4—4 1/2"	455M	1.30	1.15
6.0	100	1 1/4—4 1/2"	330M	1.28	1.13
6.0	101	1 1/4—4 1/2"	345M	1.30	1.15
15.0	100	1 1/4—6 1/2"	425M	1.08	...
15.0	101	1 1/4—6 1/2"	None made	1.10	...
15.0	600	1 1/4—6 1/2"	425M	1.10	...
15.0	601	1 1/4—6 1/2"	None made	1.12	...

Staple lengths are restricted to the range shown opposite each denier above. The actual cut lengths within these ranges are as follows:

1 1/4, 1 1/2, 2, 2 1/2, 3, 4 1/2 and 6 1/2

Types

Type 100 Bright, normal tenacity, not heatset.

Type 101 Bright, normal tenacity, heatset.

Type 200 Semidull, normal tenacity, not heatset.

Type 201 Semidull, normal tenacity, heatset.

Type 420 Semidull, high tenacity, high modulus, no crimp.

Type 600 Dull normal tenacity, not heatset.

Type 601 Dull normal tenacity, heatset.

These prices are subject to changes without notice.

Terms—Net 30 Days.

Freight Terms—Terms are F.O.B. shipping point, freight prepaid our route within the continental limits of the United States, excluding Alaska.

Industrial Rayon Corp.

Effective August 18, 1958

Nylon Staple

1.5 denier	\$1.33 per lb.
2, 3 and 6 denier	1.28 per lb.
8 denier	1.15 per lb.
15 and 22 denier	1.08 per lb.

Bright, semi-dull, and full-dull. Required lengths.

NYTRIL

B. F. Goodrich Chemical Co.

A division of The B. F. Goodrich Co.

DARVAN

Effective Nov. 21, 1958

Type	Not Crimp Set	Crimp Set
3, 4 1/2 and 6 Denier	\$1.45	\$1.50
1 1/2, 2 Denier	\$1.50	\$1.55

Pack in 100 Lb. Bales, Net

Staple lengths 1 1/4, 2, 3, 4 1/2"

Tow—90,000 Total Denier

Bright, Semi-dull, Dull

(Deniers and lengths of staple not listed above are available upon special request.)

Terms: Net 30 Days.

F.O.B. Shipping Point (Avon Lake, Ohio) Minimum freight prepaid our route to points east of the Mississippi River within the continental limits of the United States, for points west of the Mississippi River freight allowed to the Mississippi River crossing nearest purchaser's mill if overland, or port of exit of purchaser's choice east of the Mississippi River.

POLYESTER

Beaunit Mills Inc.

"Vycron"

Polyester P-23 (Semi-Dull)

Current Prices	Denier	Cut*	Per Lb.
Tow for Converters (Tow Bundle 200,000 Den.)	1.5 den.	1 1/2"	\$1.36
	3.0 den.	2"	1.36
Tow Yarn for Direct Spinners	1.5 den. (1680/1120)		1.45
	1.5 den. (3360/2240)		1.36
	3.0 den. (3360/1120)		1.36

(* Can be cut to other lengths when desired.)

Coarse Denier Yarns, No-Twist Tubes

1.5 Denier	3.0 Denier	
420/280	420/140	1.65
840/560	840/280	1.60
1260/840	1260/420	1.50
1680/1120	1680/560	1.45
3360/2240	3360/1120	1.36

E. I. du Pont de Nemours & Co.

Textile Fibers Dept.

Current Prices

"Dacron"** Staple and Tow

Denier	Luster	Type*	Length	Tow	Bundle	1st Gr.
1.25	Semidull	54	1 1/4"-3"	None	made	\$1.36
1.5	Semidull	64	Tow only		550M	1.41
1.5	Semidull	54	1 1/4"-3"		550M	1.36
			& Tow			
3.0	Semidull	64	1 1/4"-4 1/2"		450M	1.41
			& Tow			
3.0	Semidull	54	1 1/4"-4 1/2"		450M	1.36
3.0	Semidull	61	1 1/4"-4 1/2"	None	made	1.36
4.5	Semidull	64	1 1/4"-4 1/2"		450M	1.36
4.5	Semidull	54	1 1/4"-4 1/2"		& Tow	
6.0	Semidull	64	1 1/4"-4 1/2"		450M	1.36
6.0	Semidull	54	1 1/4"-4 1/2"		450M	1.31
6.0	Semidull	61	1 1/4"-4 1/2"		& Tow	
			None	made		1.31

* Type:

Type 54—Semidull, Normal Tenacity.

Type 61—Industrial Staple Having 45% Shrinkage, Not Intended for Dyeable Uses.

Type 64—Pill Resistant more Dyeable Staple Primarily for Suiting Fabrics.

F. O. B. Shipping Point—Freight prepaid our route within the continental limits of the United States, excluding Alaska.

Eastman Chemical Products, Inc.

Tennessee Eastman Co. Effective September 15, 1958

"Kodell"**

1 1/2 denier		\$1.60
3 and 4 1/2 denier		1.50

Terms: Net 30 days. Payment—U. S. A. dollars.

Transportation charges prepaid or allowed to destination in continental United States, except Alaska. Seller reserves right to select route and method of shipment. If Buyer requests and Seller agrees to a route or method involving higher than lowest rate Buyer shall pay the excess of transportation cost and tax.

** "Kodell" is a trade-mark of the Eastman Kodak Company.

VINYON

American Viscose Corp. Effective October 1, 1956

Avisco Vinyon Staple

3.0 denier	1/2" unopened	\$.80 per lb.
3.0 "	1 1/4" unopened	.80 per lb.
3.0 "	1 1/4" opened	.90 per lb.
3.0 "	2" opened	.90 per lb.
3.0 "	2" unopened	.80 per lb.
5.5 "	1" opened	.90 per lb.
5.5 "	3 1/2" opened	.90 per lb.
5.5 "	3 1/2" unopened	.80 per lb.

Terms: Net 30 days.

SARAN

The National Plastics Products Company—

Fibers Division

Odenton, Maryland

Current Prices: Saran Staple

Type	Denier	Natural	Colors
2N	22	\$.70	\$.75
2N	16	.74	.79
3Q*	22	.68	.72

In any staple length 1 1/4 to 6". Also 45 denier, 7" cut.

* For carpets and industrial fabrics.

F.O.B. Odenton, Maryland.

Terms: net 30 days.

**INDUSTRIAL
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Calendar of Coming Events

Oct. 1-2—Society Plastics Industry New England Section conference. Wentworth-by-the-Sea, Portsmouth, N. H.

Oct. 1-2—Textile Quality Control Association fall meeting. Grove Park Inn, Asheville, N. C.

Oct. 3—Georgia Textile Operating Executives fall meeting. Georgia Tech, Atlanta, Ga.

Oct. 7—Chemical-Finishing Conference, sponsored by National Cotton Council. Mayflower Hotel, Washington, D. C.

Oct. 7-9—AATCC annual convention. Sheraton-Park and Shoreham Hotels, Washington, D. C.

Oct. 7-10—AATCC annual convention. Sheraton-Park and Shoreham Hotels, Oct. 8-9—N. C. Textile Manufacturers Association annual convention. Carolina Hotel, Pinehurst, N. C.

Oct. 8-9—Southern Textile Methods & Standards Association fall meeting. Clemson House, Clemson, S. C.

Oct. 10—Alabama Textile Education Foundation meeting. Student Union Building, Auburn, Alabama.

Oct. 10—Alabama Textile Operating Executives fall meeting. Langdon Hall, Auburn, Ala.

Oct. 14—AATT monthly meeting. Della Robbia Room, Hotel Vanderbilt, New York, N. Y.

Oct. 15-16—Quartermaster Association, annual national convention. Hotel Statler-Hilton, New York, N. Y.

Oct. 16—AATCC Northern New England Section meeting. Lexington Inn, Lexington, Mass.

Oct. 17—Textile Education Foundation, Inc. annual meeting. A. French Textile School, Atlanta, Ga.

Oct. 24—AATCC Midwest Section meeting. Bismarck Hotel, Chicago, Ill.

Oct. 27-28—Institute of Textile Technology. Meeting of Technical Advisory Committee and Board of Trustees. Charlottesville, Va.

Nov. 4—AATT monthly meeting. Della Robbia Room, Hotel Vanderbilt, New York, N. Y.

Dec. 2—AATT monthly meeting. Della Robbia Room, Hotel Vanderbilt, New York, N. Y.

Dec. 4—AATCC Northern New England Section, joint symposium with ASME Textile Engineering Div. Smith House, Cambridge, Mass.

1960

Jan. 6—AATT monthly meeting. Della Robbia Room, Hotel Vanderbilt, New York, N. Y.

Feb. 2-4—SPI Reinforced Plastics Division conference. Edgewater Beach Hotel, Chicago, Ill.

Feb. 3—AATT monthly meeting. Della Robbia Room, Hotel Vanderbilt, New York, N. Y.

Feb. 8-9—National Cotton Council annual convention. Dallas, Texas.

Mar. 2—AATT monthly meeting. Della Robbia Room, Hotel Vanderbilt, New York, N. Y.

Apr. 6—AATT monthly meeting. Della Robbia Room, Hotel Vanderbilt, New York, N. Y.

Apr. 6-9—ACMI annual meeting. Americana Hotel, Bal Harbour, Fla.

Apr. 7-9—American Cotton Manufacturers Institute annual convention. American Hotel, Bar Harbor, Fla.

May 4—AATT monthly meeting. Della Robbia Room, Hotel Vanderbilt, New York, N. Y.

May 23-27—American Textile Machinery Exhibition. Auditorium, Atlantic City, N. J.

May 31-Jun. 2—Cotton Research Clinic. Grove Park Inn, Asheville, N. C.

Jun. 1—AATT monthly meeting. Della Robbia Room, Hotel Vanderbilt, New York, N. Y.

Jun. 23-25—Southern Textile Association annual convention. Grove Park Inn, Asheville, N. C.

Oct. 3-7—Southern Textile Exposition. Textile Hall, Greenville, S. C.

Oct. 6-8—AATCC national convention. Sheraton Hotel, Philadelphia, Pa.

Index to Advertisers

(*See previous or subsequent issues)

Allen Beam Co.	27	Fabulized, Inc.	Olin Mathieson Chem. Co.
Allentown Bobbin Works, Inc.	118	Fancourt Co., W. F.	Onyx Oil & Chemical Co., III Cover
Allied Chemical Corp.		Fiske Bros. Refining Co.	Osaka Consultants Co., Ltd.
National Aniline Div.	30	Fletcher Works, Inc.	
Semet-Solvay Petrochemical Div.		Foster Machine Co.	
Solvay Process Div.		Franklin Process Co.	
American Bemberg	10	Gaston County Dyeing Machine Co.	
American Cyanamid Co.	64	Geigy Chemical Corp.	85,86
American Enka Corp.	20	Gessner Co., David	39
American Lava Corp.	IV Cover	Globe Dye Works Co.	102
American Viscose Corp.	22, 23	Guider Specialty Co., The	
Andrews & Goodrich		Hans J. Zimmer	
Apex Chemical Co., Inc.	53	Hart Products Corp.	26
Arkansas Co., Inc.	51	Hartford Machines Screw Co.	
Arnold, Hoffman & Co.	37	Heany Industrial Ceramic Co.	109
Atlantic Rayon Co.	115	Heresite & Chemical Co.	
Atlas Electric Devices Co.		Herr Mfg. Co., Inc.	21
Barber-Colman Co.		Hoffner Rayon Co.	
Beaunit Mills, Inc.	97	Howard Bros.	38
Belle Chemical Co.		Industrial Rayon Corp.	
Borregaard Co., Inc., The	113	Interchemical Corp.	
Butterworth & Sons Co., H. W.		Icelin-Jefferson Financial Co. Inc.	111
Carbide-Hoechst Corp.		Johnson Corp., The	
Celanese Corp. of America		Kenyon-Piece Dyeworks, Inc.	98
Yarn Div.	14, 15	Kidde Manufacturing Co., Inc.	57
Ciba Company, Inc.		Knitting Arts Exhibition	
Chandler Machine Co.		Koppers Company Inc.	
Chemstrand Corp.		Lambertville Ceramic & Mfg. Co.	52
Chem-Tex, Inc.		Laurel Soap Mfg. Co.	111
Cocker Machine & Foundry Co.		Leatex Chemical Co.	113
Collins Supply and Equipment Co.	118	Lindly & Co., Inc.	107
Columbia-Southern Chem. Corp.		Loper Company, Ralph E.	118
Corn Products Sales Co.		Lubriplate Division	
Courtaulds (Alabama), Inc.	28	Malina Company	
Crompton & Knowles Corp.		Marshall & Williams Corp.	
Curlator Corp.	59	Mayer's Grand Guide	
Dary Ring Traveler Co.		McCandless Corp.	
Davison Publishing Co.		Melton Corp.	18
Dayton Rubber Co. The		Miller Corp., Harry	
Denman Textile Rubber Co.		Milton Machine Works, Inc.	
Dobson & Barlow, Ltd.		Mitchell-Bissell Co.	55
Dow Chemical Co., The		National Drying Machinery Co.	45
Draper Corporation	II Cover, 62, 63	National Ring Traveler Co.	
Duplan Corp.		National Starch & Chem. Corp.	8
Du Pont de Nemours & Co., E. I.		National Vulcanized Fibre Co.	
Dyestuffs Department		Lestershire Spool Div.	
Textile Fiber Department	12, 13, 40, 41	New Department, Div. of Gen. Motors	
Eastman Chem. Pro. Inc.	24	New York & New Jersey Lubricant Co.	6
Emkay Chemical Co.		Nopco Chemical Co.	100
Englehard Industries, Inc.		North American Rayon Corp.	97
Baker Platinum Div.			

BUSINESS SERVICE

Bertner Yarns Co. 119
 Chas. P. Raymond Service Inc. 119
 American Enka Corp. 119

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